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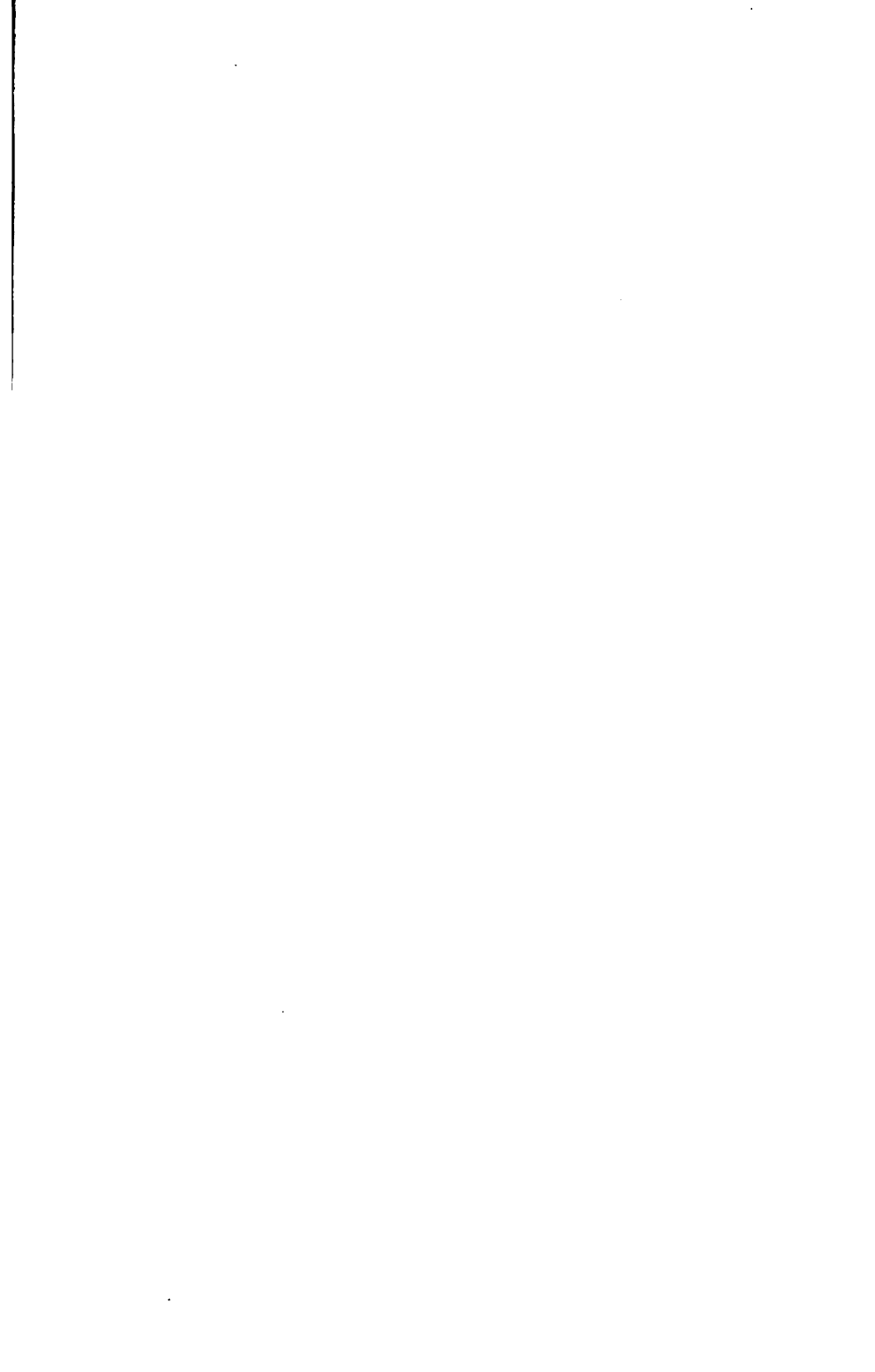
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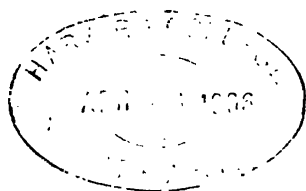
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## SUBJECT CATALOGUE.

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## HYPERZOOLOGY.

## 0000 PHILOSOPHY.

**Camerano, Lorenzo.** Contributo alla storia delle Teorie Lamarckiane in Italia: Il corso di Zoologia di Franco Andrea Bonelli. Torino, Atti Acc. sc., **37**, (1901-1902), 1902, (311-320).

**Giard, Alfred.** Les idées de Lamarck sur la métamorphose. Paris, C.-R. soc. biol., **55**, 1903, (8-9).

**Hickson, S. J.** [Presidential address.] Nature, London, **68**, 1903, (452-458).

**Joseph, Heinrich.** Der Begriff des Individuums in der Zoologie. Wien, Schr. Ver. Verbr. Natw. Kenntn., **43**, 1903, (305-345).

**Lamarck, Jean.** Zoologische Philosophie. Nebst einer biographischen Einleitung von Charles Martins aus dem Franz. übersetzt von Arnold Lang. 2. unveränd. (anastat.) Abdruck. Leipzig (J. A. Barth), 1903, (LII + XXIV + 512). 22 cm. 10 M.

**Lodge, Sir O. J.** Interaction between the mental and the material aspect of things. Nature, London, **67**, 1903, (595-597). [Discussion by Hobson, Minchin, McDougall and others follow, ib., (611) and **68**.]

**Metchnikoff, E.** The nature of man. Studies in optimistic philosophy. Translated by P. Chalmers Mitchell. [Only zoological to a slight extent.] London, 1903, (xviii + 309). 8vo.

**Mochi, A.** La legge di Goethe. Firenze, Archivio Soc. ital. antrop. etnol., **32**, 1902, (176-183).

(n 2-9053)

**Morgan, Thomas Hunt.** Darwinism in the light of modern criticism. Harper's Monthly Magazine, New York and London, **106**, 1903, ([476]-479).

**Timiriaseff, C.** The cosmical function of the green plant. Croonian lecture. [Transmutation of light into bodies. London, Proc. R. Soc., **72**, 1903, (461-461).

**Wallace, A. R.** Hitherto unpublished letters of Charles Darwin. Pop. Sci. Mon., New York, N.Y., **62**, 1903, (387-414, with portr.).

**Yule, G. U.** Notes on the theory of association of attributes in statistics. Biometrika, Cambridge, **2**, 1903, (121-134).

## 0010 HISTORY. BIOGRAPHY.

Bericht über die wissenschaftlichen Leistungen in der Naturgeschichte der niederen Thiere, begründet v. R. Leuckart. (N.F.) Bd 12. Berichte von v. Linstow, Maxim. Meissner, Ant. Collin, Oskar Carlgren, W. Weltner, S. Prowazek. Berlin (Nicolai), 1903, [IV + 290]. 24 cm. [Arch. Natg., Berlin, **62**, Bd 2, H. 3, 1896 [1903].]

Jahresberichte über die Fortschritte der Anatomie und Entwicklungsgeschichte. In Verbindung mit Bardeleben [u. A.] hrsg. v. G[ustav] Schwalbe. (N.F.) 8. Literatur 1902. Abt. 1-3. Jena (G. Fischer), 1903, (XVIII + 256 + 304 + 927). 24 cm. [0020].

**ADAMS, Charles Baker v. Seely, H. M.**

**Albert I., Fürst von Monaco.** Eine Seemanns-Laufbahn. Autorisierte Uebersetzung aus dem Französischen v.



Alfred H. Fried. Berlin (Boll u. Pickardt), [1903], (VII + 367). 22 cm. 6 M.

**Aldrich**, J[ohn] M[erton]. Garry de N. Hough, M.D. [with bibliography]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (245-248, with portr.).

**Baer**, W. Dr. Hinrich Nitsche†. Ornith. Monatschr., Gera, **28**, 1903, (55-56).

**Baker**, Ray Stannard. The search for the missing link, with an account of the work of Professor Ernst Haeckel. McClure's Magazine, New York and London, **17**, 1901, (328-337, with text fig.).

[**Baldner**, Leonhard]. Das Vogel-, Fisch- und Thierbuch des Strassburger Fischers Leonhard Baldner aus dem Jahre 1666. Hrsg., mit e. Einleitung u. erläut. Anmerk. versehen v. Robert Lauterborn. Ludwigshafen a. Rh. (A. Lauterborn), 1903, (LXVI + 179). 25 cm. 4,50 M.

**Bardleben**, Karl von. Julius Victor Carus†. Anat. Anz., Jena, **23**, 1903, (111).

**BARLOW**, Chester v. Taylor, Henry Reed.

**BASSETT**, Homer Franklin. Obituary. Philadelphia, Pa., Ent. News Acad. Nat. Sci., Amer. Ent. Soc., **13**, 1902, ([203]-205, with portr.).

**BASSI**, Agostino v. Calandruccio.

**BATES**, Frederick. Ent. Mag., London, **39**, 1903, (286).

— v. Donisthorpe.

**BENNIE**, v. Horne, J.

**Berlese**, Antonio. Adolfo Targioni Tozzetti. Necrologia. Bollettino di Entomologia agraria, Padova, **9**, 1902, (217-227).

**BLAKE**, Charles Alfred. Biography, [with bibliography]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (212-215, with portr.).

**Blasius**, Rudolf. Gustav Radde†. Nachruf. Ornith. Monatschr., Gera, **28**, 1903, (399-404, mit Portr.).

— Alexander von Homeyer†. Nachruf. Ornith. Monatschr., Gera, **28**, 1903, (404-411, mit Portr.).

**BLUM**, Isaak v. Reichenbach, H.

**BOARDMAN**, G. A. v. Boardman, S. L.

**Boardman**, Samuel Lane. The naturalist of the Saint Croix. Memoir of George A. Boardman. A selection from his correspondence and published writings, notices of friends and contemporaries with his list of the birds of Maine and New Brunswick. Bangor (Privately printed) 1903, (xi + 351, with portr.). 24.3 cm.

**Bonney**. Review of: More letters of Charles Darwin, by Francis Darwin and A. C. Seward. Nature, London, **67**, 1903, (529).

**Bottazzi**, F. Leonardo da Vinci filosofo-naturalista e fisiologo. Firenze, Archivio Soc. ital. antrop. etnol., **32**, 1902.

**Bougon**. Les animaux de nos régions au vi<sup>e</sup> siècle. Naturaliste, Paris, **24**, 1902, (267-268).

**BUCKLEY**, Thomas Edward v. Harvie-Brown, J. A.

**Calandruccio**, S. Agostino Bassi. Notice biographique. Arch. parasit., Paris, **6**, 1902, (42-53).

**Camerano**, Lorenzo. Contributo alla storia delle Teorie Lamarckiane in Italia: Il corso di Zoologia di Franco Andrea Bonelli. Torino, Atti Acc. sc., **37**, (1901-1902), 1902, (311-320).

**CANESTRINI**, Giovanni v. Lioy, P.

**Capobianco**, F. L'autodifesa dell'organismo. Incurabili, Napoli, **17**, 1902, (321-346).

**CARUS**, Julius Victor v. Bardleben, Karl von.

— v. Hanstein, R. von.

— v. Taschenberg, O.

**Caullery**, M. et **Mesnil**, F. Revue annuelle de Zoologie. Rev. gén. sci., Paris, **14**, 1903, (608-624).

**Clodius**, G. Carl Wüstnei. Ornith. Monatsber., Berlin, **11**, 1903, (17-18).

**COLLETT**, O. v. Dautzenberg, P.

**COOPER**, J. G., M.D. v. Raymond, W. J.

**Cossmann**, M. [Nécrologie de] R. Tate. J. conchyliol., Paris, **51**, 1903, (92-94).

**CROTCH**, William Duppa. Ent. Mag., London, **39**, 1903, (256).

**DALE, Edmond Robert** by C. W. Dale. Ent. Mag., London, **39**, 1903, (255).

**DARWIN, C. v. Darwin, F.**  
— v. Wallace, A. R.

**Darwin, Francis and Seward, A. C.** More letters of Charles Darwin: a record of his work in a series of hitherto unpublished letters. Edited by Francis Darwin and A. C. Seward. 2 Vols. London, 1903, (xiv + 494; vi + 508; 14 portr.). [Review] by Bonney, Nature, London, **87**, 1903, (529). 8vo.

**Dautzenberg, Ph.** [Nécrologie de] O. Collett. J. conchyliol., Paris, **51**, 1903, (94-95).

— [Nécrologie de] A. Wetherby. J. conchyliol., Paris, **51**, 1903, (95-96).

**DAVID, Armand, l'abbé v. Oustalet, E.**  
**DEBEAUX, G. v. Fischer, H.**

**Dennert, E.** Die Wahrheit über Ernst Haeckel und seine „Welträtsel“. Nach dem Urteil seiner Fachgenossen beleuchtet. 4. Tausend. Volksausg. Halle (C. E. Müller), 1903, (IX + 143). 20 cm. 0,75 M.

**DOHERTY, William v. Holland, W. J.**

**Domsthorne, Frederic Bates.** Ent. Rec., London, **15**, 1903, (347-349).

**DTBOWSKI, B. v. Znatowicz, B. et Tur, J.**

**Eckstein, [Karl].** Hinrich Nitsche. Zs. Forstw., Berlin, **35**, 1903, (1-3).

**Evans, A. H.** Turner on birds: a short and succinct history of the principal birds noticed by Pliny and Aristotle, first published by Doctor William Turner, 1544. With introduction, translation, notes and appendix. Cambridge, 1903, (xviii + 223). 8vo.

**FAUST, J.** Ent. Mag., London, **39**, 1903, (71).

— v. Semenov, A. P.

**FAUST, Johannes K. E.,** with portrait and list of writings by Heller. D. ent. Zs., Berlin, **1903**, (401-410).

— v. Heller, K. M.

**FILHOL, Henri v. Pettit, Auguste.**

**Fischer, H.** [Nécrologie de] H. Gandon. J. conchyliol., Paris, **51**, 1903, (91-92).

**Flake, John.** Reminiscences of Huxley. The Atlantic Monthly, Boston and New York, **87**, 1901, (275-287).

(N 2-9053)

**FOWLER, J. H.** Entomologist, London, **36**, 1903, (272).

**Fürbringer, Max.** Carl Gegenbaur†. Anat. Anz., Jena, **23**, 1903, (589-608).

— Carl Gegenbaur. [In:] Heidelberger Professoren aus d. 19. Jahrhundert. Festschr. d. Univ. Bd. 2.] Heidelberg (C. Winter), 1903, (389-466). 27 cm.

**GAETKE, Heinrich v. Herman, O.**

**GANDION, H. v. Fischer, H.**

**GEGENBAUR, Carl v. Fürbringer, M.**

— v. Hanstein, R. von.

— v. Palmén, J. A.

— v. Toth, Zsigmond.

**GIARD, Alfred.** Les idées de Lamarck sur la métamorphose. Paris, C. R. soc. biol., **55**, 1903, (8-9).

**GILL, Theo[dore] [Nicholas].** The first edition of Holbrook's North American Herpetology. Science, New York, N.Y., **17**, 1903, (910-912).

**GRAAF, Reynier de, v. Meunier, L.**

**Greshoff, M.** Kuhl und van Hasselt, eine Episode der niederländisch-indischen Naturforschung. (Holländisch) Album der Natuur, Haarlem, **1903**, (1-22, 60-88).

**Grinnell, Joseph.** The ornithological writings of Chester Barlow. Condor, Santa Clara, Cal., **5**, 1903, (8-10).

**GROTE, Augustus Radcliffe.** Ent. Mag., London, **39**, 1903 (206).

— [Biography] Philadelphia, Pa., Ent. News Acad. Nat. Sci., Amer. Ent. Soc., **14**, 1903, (277-278, with pl.).

**HAECKEL.** Briefwechsel zwischen Ernst Haeckel und Friedrich von Hellwald. Mit Vorwort von Ernst Haeckel. Ulm (H. Kerler), 1901, (IV + 32). 23 cm. 1 M.

— v. Baker, Ray S.

**Hansen, H. J.** Emil Adolf Lövendal†. Entomol. Tidskr., Stockholm, **22**, 1901, (177-183, with photogr.).

**Hanstein, R. von.** Julius Victor Carus†. Nachruf. Natw. Rdsch., Braunschweig, **18**, 1903, (245-246).

— Carl Gegenbaur†. Nachruf. Natw. Rdsch., Braunschweig, **18**, 1903, (478-479, 490-492).

**HARTLAUB, Gustave v. Oustalet, E.**

**Harvie-Brown**, J. A. Thomas Edward Buckley. In Memoriam. Ann. Scot. Nat. Hist., Edinburgh, **1903**, (1-4).

**HASSELT**, [Alexander Willem Machiel] van v. Leesberg, A. F. A.

**HASSELT**, Johan Coenraad von v. Greshof, M.

**Heller**, K. M. Nekrolog. [Johannes K. E. Faust. Mit Schriftenverzeichnis]. D. ent. Zs., Berlin, **1903**, (401-410, mit Portr.).

——— **Oskar Schneider**†. D. ent. Zs. Iris, Berlin, **1903**, (236-246, mit Portr.).

——— **Hinrich Nitsche**†. Dresden, SitzBer. Isis, **1902**, **1903**, (V-XI).

**HELLWALD**, F. von. Briefwechsel zwischen Ernst Haeckel und Friedrich von Hellwald. Mit Vorwort von Ernst Haeckel. Ulm (H. Keiler), 1901, (IV + 32). 23 cm. 1 M.

**HELVICUS DIETERICUS** v. Landau, [Richard].

**Herman**, Otto. Heinrich Gaetke zur Ehre. Ornith. Monatsber, Berlin, **11**, 1903, (35-38).

**HEUDE**, P. Petrus, S. J. v. Waasmann, E.

**HOLBROOK**, John Edward v. Gill, T. N.

**Holland**, W. J. [Obituary notice of Mr. William Doherty]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (64).

**HOMEYER**, Alexander von v. Blasius, Rudolf.

**HOUGH**, Garry de N. v. Aldrich, J. M.

**Howes**, G. B. The morphological method and recent progress in zoology. London, Rep. Brit. Ass., **1902**, (618-635); Nature, London, **66**, 1902, (522-530); [reprint], Washington, D.C., Smithsonian Inst., Rep., **1902**, **1903**, (11. + 581-608). Separate 24.5 cm.

**Hubrecht**, A. A. W. Emil Selenka, 27. Febr. 1842-21. Jan. 1902. Ein Lebensbild. [In: Studien über Entwicklungsgesch. d. Tiere, hrsg. v. E. Selenka, H. 10 = Menschenaffen, hrsg. v. E. Selenka, Lfg. 5.] Wiesbaden (C. W. Kreidel), 1903, (1-14, mit Portr.).

**HUXLEY**, T. H. v. Fiske, J.

——— v. Routh, J. E.

**HYATT**, Alpheus v. Packard, A. S.

**Jacobi**, Arnold. Gustav Radde†. Nachruf. Natw. Rdsch., Braunschweig, **18**, 1903, (309-311).

**Jäger**, Franz. [Gustav] Jägers volkstümliche zoologische Werke. G. Jägers Monatsbl., Stuttgart, **21**, 1902, (89-92).

**Jäger**, Gustav, jun. [Gustav] Jägers ältere zoologische Arbeiten. G. Jägers Monatsbl., Stuttgart, **21**, 1902, (85-89).

**JÄGER**, Gustav v. Jäger, F.

——— v. Jäger, G.

**Klunsinger**, O. B. Zum Gedächtnis an Obermedizinalrat Dr. Ernst v. Zeller. Mit Angabe seiner zoologischen Forschungen. Stuttgart, Jahreshfte Ver. Natk., **59**, 1903, (XXXVI-XLIII).

——— **Ernst von Zeller**. Halle, Leopoldina, **38**, 1902, (121-122).

**Kobelt**, [Wilhelm]. Otto Franz von Moellendorff. Frankfurt a. M., NachrBl. D. malakozool. Ges., **35**, 1903, (161-167).

**Koeppen**, Th. P. Gustav Radde. Bemerkungen über sein Leben und seine wissenschaftliche Tätigkeit. (Russ.) St. Petersburg, Zurn. Min. Narodn. Prosvěšč., **1903**, (109-128).

**KOOREVAAR**, P. v. Markus, H.

**Kraatz**, G. Nekrolog [F. A. Clemens Müller]. D. ent. Zs., Berlin, **1903**, (173-174, mit Portr.).

——— [Paul Weise†.] D. ent. Zs., Berlin, **1903**, (174).

**KRIECHBAUMER**, Joseph v. Taschenberg, O.

**KUHL**, Heinrich v. Greshoff, M.

**KUPFFER**, Carl von v. Voit, C.

**Kumecov**, N. I. Sophie Mich. Peregiaslavceva†. (Russ.) Rev. Russ. Ent., Jaroslavl, **3**, 1903, (422).

**Lampa**, Sven. Eleanor Anne Ormerod†. (Swedish) Entomol. Tidskr., Stockholm, **22**, 1901, (183-186).

**Landau**, [Richard]. Ein deutscher Vorläufer Harvey's [Helvicus Dietericus]. Janus, Amsterdam, **7**, 1902, (60-63).

**Landois**, H[ermann]. Dr. Bernard Vormann†. Münster, Jahresber. Prov. Ver. Wiss., **30**, (1901-02), 1902, (35-37).

——— Dr. Adolf Morsbach†. Münster, Jahresber. Prov. Ver. Wiss.,

31, (1902-03), 1903, (144-148, mit 1 Taf.).

**Leesberg**, A. F. A. In memoriam [Alexander Willem Machiel van Hasselt]. 's Gravenhage, Tijdschr. Ent., **46**, 1903, (71-77).

**Lloy**, Paolo. Commemorazione di Giovanni Canestrini. Venezia, Atti Ist. ven., **62**, (Ser. 8, 5), 1902, (45-67).

**LÖVENDAL**, Emil Adolf v. Hansen, H. J.

**MACGILLIVRAY**, J. v. MacGillivray, W.

**MACGILLIVRAY**, William v. MacGillivray, W.

**MacGillivray**, W. A memorial tribute to William MacGillivray, M.A., LL.D. Ornithologist; Professor of Natural History, Marischal College and University, Aberdeen. Edinburgh (privately printed), 1901, (xvi + 203). 8vo.

Professor MacGillivray of Aberdeen. Scottish Art and Letters, 1903, (349-371).

**MAETERLINCK**, M. v. Rod, Edouard.

**Markus**, H. In memoriam [P. Koorevaar]. (Holländisch) Tijdschr. Veearts., Utrecht, **31**, [1903], (1-3, mit Portr.).

**Mariatt**, [Charles] [Lester]. Japan's foremost entomologist [Y. Nawa]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, ([65]-68, with pl.).

**MARSHALL**, Rev. Thomas Ansell. by R. McL. Ent. Mag., London, **39**, 1903, (152).

Ent. Rec., London, **15**, 1903, (190).

**MARSTON**, George Terence. [Obituary.] Nautilus, Boston, Mass., **17**, 1903, (47).

**Martin**, L. Lionel de Nicéville†. D. ent. Zs. Iris, Berlin, **14**, (1901), 1902, (381-386).

**Méhely**, Lajos. Julius Szakáll's Andenken. Állatt. Közlem., Budapest, **2**, 1903, (191-193).

**MEHNERT**, Ernst v. Schwalbe, G.

**Meunier**, L. Reynier de Graaf, 1641-1673. L'ovulation démontrée au XVII siècle par l'anatomie normale, par l'anatomie pathologique et par l'expérimentation. Janus, Amsterdam, **6**, 1901, (524-530).

**MILNE-EDWARDS**, E. A. v. Oustalet, E.

**MOELLENDOFF**, Otto Franz von v. Kobelt, W.

**MORSBACH**, Adolf v. Landois, H.

**Moschen**, [Lamberto]. Discorso letto . . . in occasione dell'inaugurazione del monumento a Canestrini a Trento. 14 Settembre 1902. Tridentum, Trient, **5**, 1902, (VII-VIII, 337-343).

**MÜLLER**, F. A. Clemens v. Kraatz, G.

**NAWA**, Y. v. Marlatt, C. L.

**NICÉVILLE**, Lionel de v. Martin, L.

**NILSSON**, Sven v. Retzius, G.

**NRTSCH**, Hinrich v. Baer, W.

— v. Eckstein, K.

— v. Heller, K. M.

— v. Taschenberg, Otto.

**ORMEROD**, Eleanor Anne v. Lampa, S.

**Oustalet**, E. A. Milne-Edwards. Orn. Paris, **11**, 1900-1901, [1902], (465-475, av. portr.).

L'abbé Armand David. Orn. Paris, **11**, 1900-1901, [1902], (475-482).

Le docteur Gustave Hartlaub. Orn. Paris, **11**, 1900-1901, [1902], (482-485).

Le baron M. Edmond de Sélys Longchamps. Orn. Paris, **11**, 1900-1901, [1902], (485-487).

**Packard**, A[lpheus] S[pring]. Alpheus Hyatt. Boston, Mass., Proc. Amer. Acad. Arts Sci., **38**, 1903, (715-727).

**Palmán**, J[ohan] A[xel]. Carl Gegenbaur. Luonnon Ystävä, Helsingfors, **1903**, 11-12, (264-272).

**PEREJASLAVCEVA**, Sophie Mich. v. Kuznecov, N.

**Pettit**, Auguste. Le professeur Henri Filhol. Autun, Bul. soc. sci. nat., **15**, 1902, (415-463).

**PRICE**, Miss S[adie] F. [Biography.] Nautilus, Boston, Mass., **17**, 1903, (71).

**PRIME**, Temple v. Roberts, S. R.

**PYETT**, Claude A. Entomologist, London, **36**, 1903, (296).

**RADDE**, Gustav v. Blasius, Rudolf.

— v. Jacobi, A.

— v. Koeppen, Th.

**Raymond**, William J. Writings of James G. Cooper, M.D., on conchology and palaeontology, with list of species described by him. Nautilus, Boston, Mass., **17**, 1903, (6-12).

- Reichenbach, H[einrich].** Isaak Blum†. Frankfurt a. M., Ber. Senckenb. Ges., 1903, Tl 1, (160-164, mit 1 Portr.).
- Retzius, Gustaf.** Sven Nilsson. Commemorative sketch. (Swedish) Stockholm, 1901, (43). 26 cm.
- Rhoads, S. N.** Auduboniana. Auk, Cambridge, Mass., (N. Ser.), 20, 1903, (377-383).
- Roberts, S. Raymond.** Temple Prime. Nautilus, Philadelphia, Pa., 16, 1903, (138-139).
- Rosa, Daniele.** Il rev. padre Kircher trasformista. Torino, Boll. Musei zool. anat., 17, N. 421, 1902, (5).
- Routh, James E.** Huxley as a literary man. The Century Magazine, New York, N.Y., 63, (N. Ser., 41), 1902, (392-398).
- Rosan, C.** Les animaux dans les proverbes. 1<sup>re</sup> et 2<sup>e</sup> parties. Paris (Ducrocq), [1902], 1<sup>re</sup> partie, (384), 2<sup>e</sup> partie, (381). 18 cm.
- Say, Thomas.** Letters . . . to John F. Melsheimer, 1816-1825, 10, 11. Philadelphia, Pa., Ent. News, Acad. Nat. Sci., 13, 1902, (9-11, 38-40).
- SCHNEIDER, Oskar v. Heller, K. M.**
- Schwalbe, G[ustav].** Ernst Mehner†. Anat. Anz., Jena, 22, 1903, (387-392).
- Seely, Henry M[artyn].** Sketch of the life and work of Charles Baker Adams [with bibliography]. Amer. Geol., Minneapolis, Minn., 32, 1903, (1-12, with portr.).
- SELENKA, Emil v. Hubrecht, A. A. W.**
- SÉLYS LONGCHAMPS, Edmond de, le baron v. Oustalet, E.**
- Semenov, A. P.** Notice nécrologique sur J. Faust (Russ.). Rev. Russ. Ent., Jaroslavl, 3, 1903, (419-421, av. portr.).
- SMITH, Bernard, Canon.** Ent. Mag., London, 39, 1903, (304).
- SPENCER, Herbert.** Nature, London, 69, 1903, (155, 156).
- STEVENS, John Saunders.** Ent. Mag., London, 39, 1903, (229).
- STRECKER, Ferdinand Heinrich Herman.** [Biography]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (1-4, with portr.).
- Šugurov, A. M. I. M. Widhalm†.** [Necrolog.] (Russ.). Rev. Russ. Ent., Jaroslavl, 3, 1903, (421).
- SZAKÁLL, Julius v. Méhely, Lajos.**
- TARGIONI-TOZZETTI, Adolf.** Ent. Mag., London, 39, 1903, (20).
- v. Berlese, A.
- v. Todaro, F.
- Taschenberg, O[tto].** Zur Erinnerung an Julius Victor Carus. Zool. Anz., Leipzig, 26, 1903, (473-483).
- Dr. Joseph Kriechbaumer, Nekrolog. Halle, Leopoldina, 33, 1902, (60-70).
- Hinrich Nitschet. Nekrolog. Halle, Leopoldina, 33, 1902, (136-144).
- Julius Victor Carus†. Ein Nachruf. Halle, Leopoldina, 39, 1903, (50-64, 66-73).
- TATE, R. v. Cossmann, M.**
- Taylor, Henry Reed.** In memoriam: Chester Barlow. Condor, Santa Clara, Cal., 5, 1903, (3-7, with portr.).
- Todaro, F. Adolfo Targioni Tozzetti:** Commemorazione. Roma, Rend. Acc. Lincei, (Ser. 5), 11, 1902.
- Töply, Robert Ritter von.** Geschichte der Anatomie. [In: Handbuch der Geschichte der Medizin. Bd 2.] Jena, 1903, (155-326).
- Tóth, Zsignond. Liegenbauer's, Karl, Andenken. Allat. Közlem., Budapest, 2, 1903, (188-191).**
- Trotter, Spencer.** Notes on the ornithological observations of Peter Kalm. Auk, Cambridge, Mass., (N. Ser.), 20, 1903, (249-262).
- Voit, C[arl].** Carl v. Kupffer†. München, SitzBer. Ak. Wiss., math.-phys. Cl., 38, 1903, (492-511).
- VORMANN, Bernard v. Landois, H.**
- Wallace, A. R.** Hitherto unpublished letters of Charles Darwin. Pop. Sci. Mon., New York, N.Y., 62, 1903, (387-414, with port.).
- Wasmann, E[rich].** P. Petrus Heude S. J.†. Ein französischer Naturforscher in China. Natur u. Offenb., Münster, 48, 1902, (625-627).
- WEISE, Paul v. Kraatz, G**
- WETHERBY, A. v. Dautzenberg, P.**

WIDHALM, I. M. v. Suguröv, A. M.

WILKINSON, Samuel James. Ent. Mag., London, **39**, 1903, (256).

Wirén, A[xel]. On the history of zoology. (Swedish) Uppsala, 1901, (28). 21 cm.

WÜSTNEI, Carl v. Clodius, G.

ZEILER, Ernst V. v. Klunzinger, C. B.

Znawowicz, Bronisław et Tur, Jan. Biographie du prof. B. Dybowski. (Polish) Wzrósłwiat, Warszawa, **22**, 1903, (113-143).

## 0020 PERIODICALS, REPORTS OF INSTITUTIONS, SOCIETIES, CONGRESSES, Etc.

Archiv für mikroskopische Anatomie und Entwicklungsgeschichte, hrsg. v. O. Hertwig, v. la Valette St. George u. W. Waldever. Namen- u. Sachregister zu Bd 51-60. Bonn (F. Cohen), 1903, (83). 25 cm.

Compte-rendu du Conseil de la Société entomologique russe pour l'année 1901. (Russ.) St. Petersburg, Hor. Soc. Ent. Ross., **36**, 1903, (LXIII-XXVI).

Compte-rendu du Conseil de la Société entomologique russe pour l'année 1902. (Russ.) St. Petersburg, Hor. Soc. Ent. Ross., **36**, 1903, (CLXIX-CCIII).

Compte rendu du Musée zoologique de l'Académie Impériale des Sciences pour l'année 1902. (Russ.) St. Petersburg, Ann. Mus. zool. Ac. Sc., **8**, 1903, (1-52).

Congrès international d'aquiculture et de pêche. Mémoires et comptes-rendus des séances publiés par J. Perard et Maire. (Exposition universelle de 1900). Paris (Challamel), 1901, (XLI + 602). 25 cm, 5. [0060 5403].

Entomological News. [Published monthly except during July and August]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (251).

Fifteenth annual meeting of the Association of Economic Entomologists. Washington, D.C., Bull. U. S. Dept. Agric., Div. Ent., No. **40**, 1903, (124). 23.3 cm.

Jahresbericht des Naturhistorischen Landesmuseums von Kärnten, 1900.

Carinthia II, Klagenfurt, **91**, 1901, Beilage (7).

Jahresbericht des Naturhistorischen Landesmuseums von Kärnten für 1901. Carinthia II, Klagenfurt, **92**, 1902, Beilage (9).

Jahresbericht über Veröffentlichungen und wichtigere Ereignisse im Gebiete des Forstwesens, der forstl. Zoologie, der Agrikulturchemie, der Meteorologie und der forstl. Botanik für das Jahr 1902. Hrsg. v. Karl Wimmenauer. Allg. Forstztg., Jg 1903, Supplement. Frankfurt a. M. (J. D. Sauerländer), 1903, (109). 28 cm.

Jahresberichte über die Fortschritte der Anatomie und Entwicklungsgeschichte. In Verbindung mit Bardeleben [u. A.] . . . hrsg. v. G[ustav] Schwalbe (N.F.) **8**. Literatur 1902. Abt. 1-3. Jena (G. Fischer), 1903, (XVIII + 256 + 304 + 927). 24 cm. [0010].

Jahresbericht der Wolga biologischen Station der naturforschenden Gesellschaft zu Saratow. [Ежегодник Волжской Биологической Станции Саратовского Общества Естествоиспытателей и Любителей Естествознания.] [Erscheint in Lieferungen seit 1903 in Saratow. 22 cm.]

List of Bird Skins offered in Exchange by the Philippine Museum. Manila, Bull. Philippine Mus., **2**, 1903, (1-8). Separate 22.8 cm.

Proceedings of New York entomological society. Meeting of May 19 [1903]. New York, N.Y., J. Ent. Soc., **11**, 1903, (249).

Rapport du jury chargé de décerner en 1902 le prix décennal des sciences zoologiques (période 1892-1901). Bruxelles (Polleunis et Ceuterick), 1903, (48). 8vo.

Records of Meetings of the American Academy of Arts and Sciences. Boston, Mass., Proc. Amer. Acad. Arts Sci., **38**, 1903, (691-709).

Résultats scientifiques de l'expédition envoyée par l'Académie Impériale des Sciences pour le déterrement du corps d'un mammoth trouvé en 1901 au bord du fleuve Berezovka. (Russ.) St. Petersburg, I, 1903, (152, av. 33 pls. and 4 figs.). 35 cm. [6003].

The Nautilus. [Place of publication changed from Philadelphia to Boston.] Nautilus, Boston, Mass., 17, 1903, (1).

The society for the advancement of the Norwegian fisheries. Report for 1902. (Norw.) Bergen, 1903, (51). 24,5 cm.

Zoologica. Original-Abhandlungen aus dem Gesamtgebiete der Zoologie. Hrsg. v. Carl Chun. H. 35 IV (= Bd 14, Lfg 4), 1902, (289-384, mit 9 Taf.). 31 cm. H. 38 (= Bd 15, Lfg 4-6), 1902, (III + 34, mit 5 Taf.). H. 39 (= Bd 16), 1903, (XI + 168, mit 52 Taf.). Stuttgart (E. Nägele). 31 cm.

Zoologische Jahrbücher. Abt. f. Systematik, Geographie u. Biologie der Thiere. Hrsg. v. J. W. Spengel. Bd 18, H. 2. Jena (G. Fischer), 1903, (155-350, mit 5 Taf.). 24 cm.

Zoologische Jahrbücher. Hrsg. v. Joh. W[ilb.] Spengel. Abth. f. Anatomie u. Ontogenie der Thiere, Bd 17, H. 3. Jena (G. Fischer), 1903, (481-618, mit 12 Taf.). 25 cm. Dasselbe. Abth. f. Systematik, Geographie u. Biologie der Thiere, Bd 17, H. 4-6; Bd 18, H. 1. Ebenda, 1903, (I-III, 585-660, mit 12 Taf.; 1-154, mit 11 Taf.).

Zoologischer Jahresbericht für 1901, hrsg. v. d. zoologischen Station zu Neapel. Red. v. Paul Mayer. Berlin (R. Friedländer u. S.), 1902, (VIII + 16 + 6 + 16 + 70 + 2 + 67 + 72 + 5 + 219 + 25). — Desgl. für 1902. Ebenda, 1903, (VIII + 29 + 28 + 25 + 81 + 72 + 62 + 236 + 32). 26 cm. Je 24 M.

BUREAU OF ANIMAL INDUSTRY, U. S. Department of Agriculture. Nineteenth annual report . . . for the year 1902. Washington, 1903, (651, with pl.).

COLLEGE VOOR DE ZEEVISSCHERIJEN. Jahresbericht über die Niederrhein. Seefischereien im Jahre 1901. (Holländisch.) Versl. Staat Ned. Zeevissch., s' Gravenhage, 1902, (1-408).

CONNECTICUT STATE COMMISSIONERS OF FISHERIES AND GAME. Fourth biennial report . . . for the years 1901-1902. State of Connecticut. Public document No. 19. Hartford, 1902, (115, with pl.). 23 cm.

NEW YORK, AMERICAN MUSEUM OF NATURAL HISTORY. Annual report of

the president, treasurer's report, list of accessions, act of incorporation, constitution, by-laws and list of members for the year 1902. New York, 1903, (96, with pl.). 24 cm.

NEW YORK FOREST FISH AND GAME COMMISSION. Sixth annual report of the Forest, fish and game commission of the State of New York. [1900.] Albany, N.Y., 1901, (532, with col. pl., text fig. and map). [0227 gg].

U. S. DEPARTMENT OF AGRICULTURE. Seventeenth annual report of the Bureau of animal industry for the year 1900. Washington, D.C., 1901, (642, with text fig., maps and pl.). 23.5 cm.

Agassiz, Alexander. Preliminary report and list of stations. With remarks on the deep-sea deposits by Sir John Murray. (Reports on the scientific results of the expedition to the tropical Pacific, in charge of Alexander Agassiz, by the U. S. Fish Commission steamer "Albatross" from August, 1899, to March, 1900. Commander Jefferson F. Moser, U.S.N., commanding. 1.) Cambridge, Mass., Mem. Mus. Comp. Zool. Harvard Coll., 26, 1902, (21, + 1-114, with 21 charts). Separate. 28.8 cm.

Birulla, A. A. Comptes-rendu du zoologue de l'expédition sur les travaux scientifiques en été 1902 pendant sa vie sur l'île Nouvelle-Sibérie. Rapports sur les travaux de l'Expédition Polaire Russe dirigée par le baron Toll. V. (Russ.) St. Peterburg, Bull. Ac. Sc., (5 Sér.), 18, No. 3, 1903, (91-94).

Bowers, George M[ead]. Report of the Commissioner for the year ending June 30, 1902. Washington, D.C., Rep. U. S. Com. Fish, pt. 28, 1902, 1903, (11. + 160 + iv with pl.). 23 cm.

Clarke, John M. Report of the state paleontologist, 1902. Albany, Univ., N.Y., Bull. St. Mus., No. 69, 1903, (849-1311). Separate. 23 cm.

Davydov, K. N. Rapport préliminaire sur un voyage à l'île Java et aux autres îles de l'archipel Malais. (Russ.) St. Peterburg, Bull. Ac. Sc., (5 Sér.), 18, No. 1, 1903, (25-32).

Dollfus, Gustave. Les Sociétés malacologiques (suite). J. conchyliol., Paris, 51, 1903, (48-60).

Durham, H. B. Report of the Yellow Fever Expedition to Para. Liverp. Sch. Trop. Medicine, Mem. VII. London

(Longmans, Green & Co.), 1902, (79, 1 pl.). [Important remarks on *Lankesterella*.]

**Dutton, J. L.** Report of the Malaria Expedition to the Gambia, 1902. Liverp. Sch. Trop. Medicine, Mem. X. London, (Longmans, Green & Co.), 1903, (46, 5 pls.). [Review], Nature, London, 68, 1903, (429).

— and **Todd, J. L.** First Report of the Trypanosomiasis Expedition to Senegambia (1902) of the Liverpool School of Tropical Medicine and Medical Parasitology. London (Longmans, Green & Co. for the University Press of Liverpool), 1903, (50 + VII, 5 pls. and numerous charts). 4to. Review, Lancet, London, 1903, 2, (1727-1728).

**Farran, G. P.** Record of the Copepoda taken on the mackerel fishing grounds off Cleggan, Co. Galway in 1901. Report on the Sea and Inland Fisheries of Ireland for the year 1901 [1903]. Part II, Appendix, No. VII, (105-120).

**French, C.** Report of the Entomologist [Victoria]. Vict. Journ. Dep. Agric., Melbourne, 2, 1903, (245-249).

**Langley, [Samuel] Pierpont.** Report of . . . Secretary of the Smithsonian institution, for the year ending June 30, 1902. [With appendices.] Washington, D.C., Smithsonian Inst., Rep., 1902, 1903, (11. + 1-115, with pl.). Separate. 24.5 cm. [Appendix 4. Report of the Superintendent of the National Zoological Park.]

**Bathbun, Richard.** Report upon the condition and progress of the U. S. National museum during the year ending June 30, 1901. [With 3 appendices including Bibliography]. Washington, D.C., Smithsonian Inst., Nation. Mus. Rep., 1901, 1903, (1-174).

**Ravenal, William de [Hastignier].** The Pan-American exposition—report of the representative of the United States fish commission. Washington, D.C., Rep. U. S. Com. Fish, 1901, 1902, (291-351, with pl.).

**Redeke, Heinrich [Carl].** Die zoologische Station der „Niederlandsche dierkundige Vereeniging“. [Jahresbericht über 1902]. (Holländisch)

Helder, Tijdschr. Ned. Dierk. Ver., (Ser. 2), 8, [1903], (XXXIX-XLV).

**Semon, Richard.** Zoologische Forschungsreisen in Australien und dem malayischen Archipel. Mit Unterstützung des Herrn Dr. Paul von Ritter ausgeführt i. d. J. 1891-1893. Bd 5: Wirbellose Tiere, Lfg 6. Jena, Denkschr. med. Ges., 8, 1903, (643-778, 1-VI, mit 16 Taf.).

**Steindachner, Franz.** Jahresbericht [des K. K. Naturhistorischen Hofmuseums] für 1900. Wien, Ann. NatHist. Hofmus., 16, 1901, (Notizen 1-59).

— Jahresbericht [des K. K. Naturhistorischen Hofmuseums] für 1901. Wien, Ann. NatHist. Hofmus., 17, 1902, (Notizen 1-58).

— Jahresbericht [des K. K. Naturhistorischen Hofmuseums] für 1902. Wien, Ann. NatHist. Hofmus., 18, 1903, (Notizen 9-69).

**Taylor, L.** Second Progress Report of the Campaign against Mosquitoes in Sierra Leone. Liverp. Sch. Trop. Medicine, Mem. 5, pt. 2. Liverpool (University Press), 1902, (13).

**True, Frederick William.** Report on the department of biology for the year 1900-1901. Washington, D.C., Smithsonian Inst., Nation. Mus. Rep., 1901, 1903, (63-91).

**Weir, J. R.** Report of the Chief Inspector of Stock [Victoria]. Vict. Journ. Dep. Agric., Melbourne, 2, 1903, (242-244).

**Woodworth, W. McM.** Annual report of the keeper of the museum of comparative zoology at Harvard college, to the president and fellows of Harvard college for 1902-1903. Cambridge, Mass., 1903, (35). 23 cm.

## 0030 GENERAL TREATISES, TEXT-BOOKS, DICTIONARIES, BIBLIOGRAPHIES, TABLES.

Bibliographie [de travaux anatomiques en langue française pour 1901-1902]. Bibliogr. anat., Nancy, 10, 1902, (97-120, 287-303); 11, 1902, (149-168).

Bibliotheca zoologica II. Verzeichnisse der Schriften über Zoologie, welche in den period. Werken enthalten u. vom J. 1861-1880 selbständig erschienen



sind. Mit Einschluss der allgemein-naturgeschichtl., period. u. paläontolog. Schriften. Bearb. v. O[tho] Taschenberg. Lfg. 15. Leipzig (W. Engelmann), 1901, (I-VI, 4529-4844). 8vo. 7 M.

Eijkjes in de dierenwereld. [Etwas aus der Tierenwelt.] Brugge (A. J. Witteryck-Delplace), 1903, (28 non paginées, grav. hors texte). 4to. 1 fr.

Entomological Literature. Philadelphia, Pa., Ent. News, Acad. Nat. Sci., 14, 1903, (306-307).

Ergebnisse einer zoologischen Forschungsreise in den Molukken und Borneo, im Auftrage der Senckenbergischen naturforschenden Gesellschaft ausgeführt von Dr. Willy Kükenenthal. Tl 2: Wissenschaftl. Reiseergebnisse, Bd 3, H. 4. Frankfurt a. M., Abh. Senckenb. Ges., 25, 1903, (5 Bl., S. 932-988, m. 1 Taf.).

Fauna chilensis. Abhandlungen zur Kenntniss der Zoologie Chiles nach den Sammlungen von Dr. L. Plate. Bd 3, H. 1. Zool. Jahrb., Jena, Suppl. 6, 1903, (1-214, mit 13 Taf.). 24 cm. [0227 hk].

Les animaux sauvages. Description concise et intuitive. Von A. W. Bruges (A. J. Witteryck-Delplace), 1901, [32], non paginées, av. figs. 12mo. 0.15 fr.

Nachtrag I zum Bücher-Verzeichnis der Bibliothek des entomologischen Vereins zu Berlin. . . . Zusammenge- stellt v. H. Stichel. Berlin (Druck v. C. Fromholz), 1902, (VIII + 48, nebst 2 Bl.). 21 cm. Auch als Beilage zu: Berliner ent. Zs., 47, 1902, [1903]. [2403].

Printenboek. De wilde dieren. [Die wilden Tieren]. Bruges (A. J. Witteryck-Delplace), 1901, (24, non paginées). 12mo. 0 fr. 15.

Allen, J[oe]l A[saph]. The A. O. U. check-list—its history and its future. Auk, Cambridge, Mass., (N. Ser.), 20, 1903, (1-9).

Banks, Nathan. An index to bulletins nos. 1-30 (New series) (1896-1901) of the division of entomology. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. 36, 1902, (64). 23 cm.

Bedford, the Duke of. The Woburn Library of Natural History. [A work on British Zoology of a comparatively

elementary nature. Two vols. have been at present issued. Mammals by Sir Harry Johnston; Butterflies and Moths by F. L. Hulme.]

Bogdanovič, E. A. Conspectus der i. J. 1902-1903 an dem Moskauer land-wirtschaftlichen Institute abgehaltenen Vorlesungen über allgemeine Zootechnik. (Russ.) Moskau, 1903, (197). 23 cm.

Brehm, A. Thierleben. Bearbeitet nach der neuesten deutschen Ausgabe für die Jugend von A. M. Nikolskij. (Russ.) St. Petersburg (Verl. von Soikin), 1903. I, (Mammalia: 520 + XII mit fig. i. T.); II, (Aves: 324 + XVII mit fig. i. T.); III, (Reptilia, Amphibia, Pisces et Evertabrata: 459 + XXXIV mit Fig. i. T.). 30 cm.

Bronn, H. G. Klassen und Ordnungen des Tier-Reichs, wissenschaftlich dargestellt in Wort und Bild. Bd 2, Abt. 2 (Coelenterata), Lfg 18-21; Abt. 3 (Echinodermen), Lfg 41-64; Bd 3, (Mollusca), Lfg 62-65; Bd 3, Suppl. (Tunicata), Lfg 31-43; Bd 4, Suppl. (Nemertini), Lfg 18-22; Bd 5 (Arthropoda), Abt. 2, Lfg 63-68; Bd 6, Abt. 1 (Pisces), Lfg 2-12; Abt. 5 (Mammalia) Lfg 61-64. Leipzig (C. F. Winter), 1901-1903. 26 cm. Die Lfg 1, 50 M.

Burroughs, John. Real and sham natural history. The Atlantic Monthly, Boston and New York, 91, 1903, (298-309).

Caullery, M. et Mesnil, F. Revue annuelle de Zoologie. Rev. gén. sci., Paris, 14, 1903, (608-624).

Cogniaux, Alfred. Eléments des sciences naturelles à l'usage des écoles moyennes et autres établissements d'enseignement élémentaire. 2 vols. Bruxelles (J. Lebegue et Cie), 1901, Chaque vol. 1 fr. 85.

Colton, Buel P[reston]. Zoology; descriptive and practical. [with bibliography]. Boston (Health), 1903, (iii + 52). 18.5 cm.

Cornish, Charles. The living animals of the world; a review of the animal kingdom for all, treated in an entirely new manner and edited by C. J. Cornish in co-operation with the most celebrated zoologists of the world. The Dutch edition undertaken by Dr. J. Buttikoff through Dr. J. McLeod, professor in Ghent. Brief description of quadrupeds,

birds, fishes, insects, &c. (Dutch) Parts 11 and 12. Antwerp, Gent (De nederlandse boekhandel), 1903, (321-384). Vol. II, Parts 15-17, (65-160); Parts 22-24, (289-384). 4to. Fr. 0.90.

**Coues, Elliott.** Key to North American birds. Containing a concise account of every species of living and fossil bird at present known from the continent north of the Mexican and United States boundary, inclusive of Greenland and Lower California, with which are incorporated general ornithology . . . and field ornithology . . . The 5th ed. (entirely rev.) exhibiting the nomenclature of the American ornithologists' union. 2 vols. Boston (D. Estes & Co.), 1903, (xli + 535 with pl.; vi + [537]-1152 with pl.). 26 cm.

**Dardenne, Jean.** Scènes de la vie des animaux. Lectures sur la zoologie. Recueil de morceaux choisis. Bruxelles (J. Lebegue et Cie), 1902, (368, av. figs). 8vo., fr. 2.50.

**Darwin, F. and Seward, A. C.** More letters of Charles Darwin; a record of his work in a series of hitherto unpublished letters, ed. by Francis Darwin . . . and A. C. Seward . . . New York (D. Appleton & Co.), 1903, (2 v. front., portr.). 22 cm.

**Darwin, F.** A Naturalist's Calendar kept at Swaffham Bulbeck, Cambridgeshire, by Leonard Blomefield (formerly Tenyns). Cambridge, 1903, (XVIII + 84). [Review] by R. L., *Nature*, London, 68, 1903, (389).

**Davis, J. R. Ainsworth.** The Natural History of Animals. The Animal Life of the World in its various Aspects and Relations. 5 vols. London, 1903. 8vo.

**Dewar, D.** Animals of no importance. Calcutta and London, 1903, (113). 8vo. Reprint of 20 smart newspaper articles. Noticed, *Nature*, London, 69, 1903, (172).

**Dollfus, G.** Les Sociétés malacologiques (suite). J. conchyliol., Paris, 51, 1903, (48-60).

**Dubois, Alphonse.** Synopsis avium. Nouveau manuel d'ornithologie. Fascicule X-XII. Bruxelles (H. Lamertin), 1902, (689-914, pls. XII-XIV). 6 fr.

**Felt, E[phraim] P[orter].** The literature of American economic entomology, Washington, D.C., Bull. U.S. Dept. Agric. Div. Ent., No. 40, 1903, (7-25).

**Field, Herbert Haviland.** New departures in the Concilium bibliographicum. II. The supplementary bibliography. Science, New York, N.Y., (N. Ser.), 17, 1903, (1014-1016).

**Forel, F. A.** Le Léman. Monographie limnologique. Vol. III., pt. 1. Lausanne (F. Rouge), 1902, (411, text-figs. 167-227). [Review], *Nature*, London, 67, 1903, (411-412).

**Godman, F. D.** Biol. Central Amer., Parts clxxvi to clxxx.

**Goode, G[eorge] Brown.** American fishes; a popular treatise upon the game and food fishes of North America, with especial reference to habits and methods of capture. New ed., completely rev. and largely extended by Theodore Gill. . . . Boston (D. Estes & Co.), [1903], (viii + [ix]-lxviii + 562, with illustr.). 24 cm.

**Grinnell, Joseph.** The ornithological writings of Chester Barlow. Condor, Santa Clara, Cal., 6, 1903, (8-10).

**Guppy, H. B.** Observations of a Naturalist in the Pacific between 1896 to 1899. Vol. I. Vanua Levu, Fiji. A description of its leading physical and geological characters. London, 1903, (xx + 392, with 1 pl., 2 maps). 8vo.

**Heflich, Aleksander et Michalski, Stanislaw.** Guide pour les autodidactes. V Partie, I Livraison: L'univers et l'homme. Principaux problèmes de la Science au point de vue de la théorie de l'évolution. 1. S. Kramsztyk: L'évolution de l'univers.—2. W. Nałkowski: L'évolution de la Terre.—3. J. Nusbaum: Le développement de la vie organique.—4. J. Eismond: La généalogie des animaux.—5. L. Krzywicki: L'évolution anthropologique de l'homme.—6. L. Krzywicki: Le développement de la culture. (Polonais) Warszawa (Kasa Mianowskiego, Gebethner i Wolff), 1903, (558). 25 cm, 2 ruble.

**Hertwig, Richard.** Lehrbuch der Zoologie. 6. umgearb. Aufl. Jena (G. Fischer), 1903, (XIV + 624). 25 cm. 11.50 M.

— A manual of Zoology. Translated from the fifth German edition, by Kingsley, J. S. London, 1903, (xi + 704). 8vo.

— Lehrbuch der Zoologie. Uebersetzt mit Abänderungen und

Zusätzen von W. Zalsenskij. 3-te Ausgabe, nach der 5-ten deutschen Ausgabe. (Russ.) Odessa, 1903, (XIV + 769, mit 621 fig.).

**Howe, Reginald Heber, jun.** A North American faunal index to the "Ornithologist" and "Oölogist." Part III. Cont. N. Amer. Ornith., Longwood and Concord, Mass., 1, 1903, (45-51). Separate. 24 cm.

**Huxley, T. H. [the late].** The scientific memoirs of Thomas Henry Huxley. Edited by Sir Michael Foster and Prof. E. Ray Lankester. Supplementary volume. London, 1903, (90). 8vo.

**Ivancov, N. A.** Handbuch der Zoologie für mittlere Lehranstalten. (Russ.) Odessa, 1903, (X + 336, mit 372 fig.). 24 cm.

**Kükenthal, Willy.** Schlusswort [zu: Ergebnisse einer zool. Forschungsreise in den Molukken u. Borneo]. Frankfurt a. M., Abh. Senckenb. Ges., 25, 1903, (969-988).

**Lankester, E. R. [and others].** A treatise on Zoology. Part I. Introduction and Protozoa second fascicle. London, 1903, (vi + 451). 8vo.

——— Catalogue of the books, manuscripts, maps and drawings in the British Museum Natural History. With an introduction by B. B. Woodward who is responsible for the preparation of the work. To be completed in about 4 volumes. Vol. I, A-D. London, 1903, (viii + 500). 4to.

**Manson, P.** Tropical Diseases. A Manual of the Diseases of Warm Climates. New and Revised Edition. London (Cassell & Co.), 1903, (XXIV + 756, 2 pls. and 130 text-figs.). [Contains a general account of malarial and other Protozoan parasites.] 8vo.

**Marshall, M. and Hurst, C. H.** A Junior Course of Practical Zoology. (Russ.) Uebers. a. d. Englischen von N. Bogojavlenskij. Moskva, 1903, XII + 220). 24 cm.

**Miller, Gerrit S[mith], jun. and Rehn, James A. G.** Systematic results of the study of North American land mammals during the years 1901 and 1902. Boston, Mass., Proc. Soc. Nat. Hist., 31, 1903, (61-145). Separate. 24.3 cm.

**Minot, Charles Sedgwick.** A laboratory text-book of embryology. Phila-

delphia (P. Blakiston's Son & Co.), 1903, (xvii + 17-380, with illustr. and pl.). 28 cm.

**Mudge, G. P.** A text-book of Zoology. London (Edward Arnold), 1901, (viii + 416).

**Oels, W.** Lehrbuch der Naturgeschichte. Tl 1: Der Mensch und das Tierreich. Braunschweig (F. Vieweg & S.), 1903, (XIX + 470, mit 36 Taf.). 24 cm. 4,50 M.

**Orton, [James].** General zoölogy, practical, systematic and comparative; being a revision and rearrangement of Orton's Comparative Zoology, by Charles Wright Dodge . . . New York, Cincinnati [etc] (American Book Co.), 1903, (512, with illustr.). 20.5 cm.

**Osborn, Henry Fairfield.** Progress of the Concilium Bibliographicum. Science, New York, N.Y., (N. Ser.), 17, 1903, (951-952).

**Poppe, S. A.** Zoologische Litteratur über das nordwestdeutsche Tiefland von 1892-1902. Bremen, Abh. natw. Ver., 17, 1903, (306-335).

**Raquet, Hector.** Notes du cours d'anatomie des animaux domestiques. Bruxelles (H. Lamertin), 1902, (203). 10 fr.

**Raymond, William J.** Writings of James G. Cooper, M.D., on conchology and palaeontology with list of species described by him. Nautilus, Boston, Mass., 17, 1903, (6-12).

**Saitta, E.** Pesci e Molluschi dei Mari della Sicilia, con aggiunta dei più comuni Crostacei ed altri animali d'acqua salsa, e vocabolario siciliano-italiano e italiano-siciliano. Messina (tip. del Progresso), 1902, (99).

**Schilling, Samuel.** Grundriss der Naturgeschichte. Tl 1: Das Tierreich. Mit Berücksichtigung der Naturgeschichte des Menschen und Hinweisen auf die Gesundheitspflege. 20. Bearb. v. H[einrich] Reichenbach. Breslau (F. Hirt), 1903, (464, mit 1 Karte u. 3 Taf.). 23 cm. Geb. 4,20 Mk.

**Schläpfer, Rudolf.** Naturwissenschaftliches Repetitorium umfassend Zoologie, Botanik, Mineralogie, Physik & Chemie. 2 vern. & verb. Aufl. Davos (Richter) 1903, (IV + 291). 8vo.

**Sharp, D.** The Zoological Record, Vol. XXXIX. Being records of Zoological literature relating chiefly to the year 1902. London, 1903, [numerous paginations].

**Sheppard, W. F.** New tables of the probability integral. *Biometrika*, Cambridge, 2, 1903, (174-190).

**Sherborn, C. D.** Index Animalium. sive index nominum quae ab a. d. MDCCCLVIII Generibus et Speciebus Animalium imposita sunt. Sectio prima a kalendis Januarii, MDCCCLVIII usque ad finem Decembris, MDCC. Cambridge, 1902, (LIX + 1195).

**Stiles, Ch[arles] Wardell and Hassall, Albert.** Index-catalogue of medical and veterinary zoology. Parts 1-5 "[Authors: A to Eyssell]." Washington, D.C., Bull. U. S. Dept. Agric., Bur. Animal Ind., No. 39, 1902, (1-435). Separate. 23 cm.

**Struska, Johann.** Lehrbuch der Anatomie der Haustiere. Wien (Braumüller), 1903, (XVI + 828). 24 cm.

**Studer.** Rapport annuel de la Société suisse de Zoologie (l'énumération des travaux publiés). *Arch. Sci. Phys.*, Genève, (sér. 4), 16, 1903, (588-590).

**Szllády, Zoltán.** Bericht über die ungarische Literatur III. 1891-1900. (Ungarisch) Budapest, 1903, (VI + 505). 26 cm.

**Thomson, J. A. and Rennie, J.** Outline of special course in natural history for Training College and King's students. Summer Session 1903. University of Aberdeen, 1903, (68). 8vo.

**Van Hauwaert, P.** Die Riesen der Wald. Nach der Natur beschrieben für die Erheiterung und Unterrichtung der Jugend. (Holländisch) Gent (I. Vanderpoorten), 1902, (64). 8vo. fr. 0.75.

Die grosse Tierenwelt. Naturtafel für die Jugend. (Holländisch) Gent (I. Vanderpoorten), 1902, (64). 8vo. fr. 0.75.

(Holländisch) Bilder aus der lebenden Natur. Gent (Vanderpoorten), 1903, (64, av. figs.). 8vo. fr. 0.75.

**Wood, C. M. and Crossman, R. W.** A laboratory guide for beginners in Zoology. London, 1903, (xxiv + 105).

[Review], *Nature*, London, 67, 1903, (318).

**Wettstein, H[einrich].** Leitfaden für den Unterricht in der Naturkunde an Sekundar- und Bezirksschulen, sowie unteren Gymnasien 7. Aufl. 2 Teile, Teil 1: Botanik, Anthropologie, bearb. v. R. KELLER, Zoologie bearb. v. G. Sruoki. Zürich, 1902, (VIII + 380, mit 467 Ill. and 5 Taf.). 8vo.

**Windle, B. C. A.** Thirteenth report on recent teratological literature. *J. Anat. Physiol.*, London, 17, 1903, (298-313).

**Woods, H.** Palaeontology. Invertebrata. Ed. 3. Cambridge, 1903, (360, with figs.).

**Zittel, Karl A. von.** Grundzüge der Paläontologie (Paläozoologie). Abt. 1: Invertebrata. 2. verb. u. verm. Aufl. München u. Berlin (R. Oldenbourg), 1903, (VIII + 558). 24 cm. Geb. 16,50 M.

**Zschokke, F[riedrich].** Fauna helvetica. Heft. 8: Parasitische Würmer. — Bibliographie der schweizerischen Landeskunde. Fascikel IV 6. Bern (K. I. Wyss), 1902, (IV + XII + 39). 8vo.

## 0040 ADDRESSES, LECTURES.

**Banti, G.** L'evoluzione nella materia e nella vita. Discorso inaugurale. Firenze (tip. Galletti e Cocci), 1902, (31).

**Bruntz, L.** Thèses présentées à la Faculté des sciences de l'Université de Nancy pour obtenir le grade de docteur ès sciences naturelles. Liège (Imprimerie H. Vaillant-Carmanne), 1903, (207, et pls. hors texte). 8vo.

**Camerano, Lorenzo.** Ricerche somatometriche in Zoologia. [Conferenza]. *Mon. zool. ital.*, Firenze, 13, 1902, (Supplemento), (13-15).

**Hickson, S. J.** [Presidential Address] *Nature*, London, 68, 1903, (452-458).

**Howes, G. B.** The morphological method and progress. London, Rep. Brit. Ass., 1902, 1903, (618-638); *Nature*, London, 66, 1902, (522-530); [reprint], Washington, D.C., Smithsonian Inst., Rep., 1902, 1903, (1 l. + 581-608). Separate. 24.5 cm.

**Nutting, Charles C**[leveland]. The perplexities of a systematist, (address by vice-president and chairman of section F for 1902). Proc. Amer. Ass. Adv. Sci., Washington, D.C., 52, 1903, (439-454); Science, New York, N.Y., (N. Ser.), 17, 1903, (63-72).

**Perrier, E.** Le Muséum d'Histoire naturelle et les Colonies françaises. Rev. gén. sci. Paris, 14, 1903, (696-700).

**Ricci, O.** Una pagina di evoluzione: conferenza. Gazz. med. lomb., Milano, 61, N. 3, 4, 5, 1902.

**Russo, Achille.** Gruppi di Echinodermi viventi e fossili e loro filiazione. Conferenza. (Sunto). Mon. zool. ital., Firenze, 13, 1902, (Supplemento), (54-58).

**Slater, P. L.** Chairman's Address to the B. O. C. at the opening of the twelfth Session of the Club. London, Bull. Brit. Ornith. Cl., 14, 1903, (2-6).

**Timiriaseff, C.** The cosmical function of the green plant. Croonian lecture. [Transmutation of light into bodies.] London, Proc. R. Soc., 72, 1903, (424-461).

**Todaro, F.** Sopra il movimento scientifico della Zoologia: Discorso inaugurale del III Congresso dell'Unione zoologica italiana tenuto in Roma. Nuova Antologia, Roma, 1902; Mon. zool. ital., Firenze, 13, 1902, Supplemento, (2-8).

**Woodward, H.** The President's Address. Some ideas on life. London, J. R. Microsc. Soc., 23, 1903, (142-157).

Cassel u. Leipzig (Th. G. Fisher & Co.), [1903]. 4 Bl. zu je 106 x 67 cm, mit 2 S. Text in 4°. 12 M.

**Ball, Th.** Grundriss der Naturgeschichte aller drei Reiche für den methodischen Unterricht bearb. 6. verb. Aufl. Leipzig (O. R. Reisland), 1903, (VIII + 312, mit 2 Taf.). 22 cm. 2,30 M.

Neuer methodischer Leitfaden für den Unterricht in der Zoologie einschliesslich der Grundbegriffe der Tiergeographie und Unterweisungen über die Gesundheitspflege . . . 10. verb. Aufl. Leipzig (O. R. Reisland), 1903, (X + 277). 22 cm. Geb. 2,20 M.

**Bohn, Heinrich.** Die geographische Naturaliensammlung des Dorotheenstädtischen Realgymnasiums und ihre Verwendung beim Unterricht. Schluss. (Wissenschaftliche Beilage zum Jahresbericht des Dorotheenstädtischen Realgymnasiums zu Berlin. Ostern 1903.) Berlin (Weidmann), 1903, (29). 25 cm. 1 M.

**Bolton, G.** A book of beasts and birds, written and illustrated with photographs from life. London, 1903, (xi + 132, with 69 pls.). 8vo.

**Davis, J. R. Ainsworth.** The Natural history of animals. The animal life of the world in its various aspects and relations. 5 half-vols., illustrated. (Incomplete.) London, 1903. 8vo. Review by R. L. Nature, London, 69, 1903, (11).

**Ebeling, Max.** Modelle für den naturwissenschaftlichen Unterricht. Natur u. Schule, Leipzig, 1, 1902, (430-434).

**Emery, Carlo.** La Zoologia secondo il nuovo Regolamento della Facoltà di Scienze. Roma, Rend. Acc. Lincei, (Ser. 5), 11, 1902, (503-504).

**Hanstein, R. von.** Die Zoologie als Lehrfach der höheren Schulen. Natw. Wochenschr., Jena, 18, 1903, (409-412).

Die bildliche Ausstattung zoologischer Schulbücher. Natur u. Schule, Leipzig, 1, 1902, (216-222).

**Heflich, Aleksander et Michalski, Stanislaw.** Guide pour les autodidactes. V Partie, I Livraison: L'univers et l'homme. Principaux problèmes de la Science au point de vue de la théorie de l'évolution. 1. S. Kramsztyk: L'évolu-

## 0050 PEDAGOGY.

Boletín de Instrucción Pública. Órgano de la Secretaría del Ramo. [Bulletin of Public Instruction.] Mexico, 1, 1903, (1-676); 2, 1903, (1-336).

Naturgeschichte nach Lebensgemeinschaften. Für die Volksschule bearb. v. mehreren Lehrern. H. 4.: Der Wald. 5. verb. Aufl. Langensalza (F. G. L. Gressler), 1903, (IV + 84). 18 cm. 0,60 M.

[R. Leuckart's] Zoologische Wandtafeln, hrsg. v. Carl Chun. Serie II: Wirbelthiere, Taf. 12: H. E. Ziegler, Skelett d. Knorpelfische.

tion de l'univers.—2. W. Nałkowski: L'évolution de la Terre.—3. J. Nusbaum: Le développement de la vie organique.—4. J. Eismond: Le généalogie des animaux.—5. L. Krzywicki: L'évolution anthropologique de l'homme.—6. L. Krzywicki: Le développement de la culture. (Polonais) Warszawa (Kasa Mianowskiego, Gebethner i Wolff), 1903, (558). 25 cm. 2 ruble.

**Hixon**, Kate B. Field work in zoology. J. Appl. Microsc., Rochester, N.Y., 6, 1903, (2400-2402).

**Hoffer**, Eduard. Lehrbuch der Tierkunde für Lehrer- und Lehrerinnen-Bildungsanstalten. 2., nach biologischen Grundsätzen bearb. Aufl. Leipzig (G. Freytag), 1903, (IV + 315, mit 1 Karte). 23 cm. Geb. 3,50 M.

**Hoyle**, W. E. The use of Museums in teaching. Manchester, Notes Mus., No. 13, 1903, (8).

**Hudson**, W. H. The Naturalist in La Plata. [Fourth edition.] Letterpress as in previous editions, plates different. London, 1903, (ix + 394). 8vo.

**Kraus**, M. und **Landolt**, H[ermann]. Der Mensch und die drei Reiche der Natur. Tl 1: Der Mensch und das Tierreich in Wort und Bild für den Schulunterricht in der Naturgeschichte. 13. verb. Aufl. Freiburg i. B. (Herder), 1903, (XIV + 256). 22 cm. 2,20 M.

**Krasnakaja**, A. A. Die Technik der Corrosionspräparate. (Russ.) St. Petersburg, Bull. labor. biol., 6, 3, 1903, (42-46).

**Lehmann**, Ad. Zoologischer Atlas. Tafel: *Equus zebra*. Leipzig (F. E. Wachsmuth), [1903]. 67 × 89 cm.

— Zoologischer Atlas. Tafel: *Psittacus erithacus*. Tafel: *Ocnia monacha*. Leipzig (F. E. Wachsmuth), [1903]. 89 × 67 cm. Je 1,40 M.

**Linville**, Henry R. Laboratory work in zoology in the De Witt Clinton high school, New York City. J. Appl. Microsc., Rochester, N.Y., 6, 1903, (2301-2309).

**Lippitch**. Studien über den Prüfungsstoff des naturgeschichtlichen Unterrichts im Untergymnasium. [Säugetiere.] Gymnasium, Paderborn, 21, 1903, (194-199).

**Maggi**, Leopoldo. La tachigenesi e gli studi universitari. Milano, Rend. Ist. lomb., (Ser. 2), 35, 1902, (819-834).

**Matsdorff**, C[arl]. Tierkunde für den Unterricht an höheren Lehranstalten. Ausg. für Realanstalten, auf Grund der preussischen Lehrpläne von 1901 bearb. In 6 Teilen. Tl 1-4. Lehrstoff der Sexta bis Unter-Tertia. Breslau (F. Hirt), 1903, (IV + 64; 78; 136; 164, mit 2 Taf.). 22 cm. Tl 1-4 geb. 4,15 M. Tl 5: Lehrstoff der Ober-Tertia. Tl 6: Lehrstoff der Unter-Sekunda. Breslau (F. Hirt), 1903, (171, mit 1 Karte; 127, mit 3 Taf. u. 1 Karte). 21 cm. Cart. Tl 5: 1,50 M., Tl 6: 1,30 M.

**Paust**, J. G. Naturgeschichte für Mädchenschulen. Mit Berücksichtigung des Haushaltungsunterrichtes bearb. (F. Hirts Realienbuch, Nr 35.) 3. erw. u. verm. Aufl. Breslau (F. Hirt), 1903, (248). 21 cm.

— und **Steinweller**, F. Pflanzen- und Tierkunde. 4. verb. u. verm. Aufl. (Der Unterricht in den Realien.) Bearb. v. Nowack [u. A.]. Tl 3. Breslau (F. Hirt), 1903, (119). 22 cm. 1 M.

**Pokorny**. Naturgeschichte des Tierreiches. Für höhere Lehranstalten neu bearb. von Robert Latzel. 26., nach biologischen Gesichtspunkten umgearb. Aufl. Leipzig (G. Freytag), 1903, (V + 233, mit 24 Taf. u. 1 Karte). 24 cm. Geb. 4 M.

**Pongs**, W. Der grüne Armpolyp (*Hydra*). Beispiel für engere Lebensgemeinschaft (Symbiose). Aus der Schule, Leipzig, 15, 1903, (267-271).

**Přerovský**, Richard. Beiträge zur Lehrmittelfrage des botanischen und zoologischen Mittelschulunterrichtes. Jahresbericht der K.K. II. deutschen Staats-Realschule in Prag-Kleinseite, 30, (1902), 1903, Prag, 1903, (17-41).

**Scherren**, H. Popular natural history of the lower animals (invertebrates). London, 1903, (288, with illustr.); [Review] Nature, London, 69, 1903, (178).

**Schilling**, Samuel. Kleine Schul-Naturgeschichte. Bearb. von R. Waerber. Auf Grund der preussischen Lehrpläne von 1901 umgearb. durch J. Seiwert. Tl 1: Der Mensch und das Tierreich. 22. Bearb. Breslau (F. Hirt), 1903, (232, mit 4 Taf.). 23 cm. 2 M.

— Grundriss der Naturgeschichte. Tl 1: Das Tierreich. Mit Berücksichtigung der Naturgeschichte

des Menschen und Hinweisen auf die Gesundheitspflege. 20. Bearb. v. H[einrich] Reichenbach. Breslau (F. Hirt), 1903, (464, mit 1 Karte u. 3 Taf.). 23 cm. Geb. 4,20 Mk.

**Schnell, Otto.** Grundriss der Naturgeschichte. Unter besonderer Berücksichtigung biologischer Verhältnisse bearb. H. 1: Tier- und Menschenkunde. 2. Aufl. Stuttgart u. Leipzig (E. Nägele), 1903, (VIII + 126 + 32). 22 cm. Kart. 1 M.

——— Lehrbuch der Zoologie für höhere Lehranstalten und die Hand des Lehrers. Unter besonderer Berücksichtigung biologischer Verhältnisse. 7. Aufl. Stuttgart u. Leipzig (E. Nägele), 1903, (XV + 464). Geb. 4,20 M.

**Schröder und Kull.** Biologische Wandtafeln zur Tierkunde. Taf. 7: (Gemeines Eichhörnchen (*Sciurus vulgaris*)). Taf. 11: Wildschwein (*Sus scrofa*). Taf. 17: Mäusebussard (*Buteo vulgaris*). Taf. 32: Grüner Grasfrosch (*Rana esculenta*). Taf. 37: Maikäfer (*Melolontha vulgaris*). Berlin (P. Parey), [1903]. 86 x 107 cm. Die Taf. 2,50 M.

**Seidel, L. E.** Das Leben der Tiere in Charakterbildern und abgerundeten Gemälden. Ein naturhistorisches Lesebuch für Schule und Haus. 3. Aufl. Langensalza (F. G. L. Gressler), 1902, (VIII + 479). 23 cm. 3,50 M.

**Schmidt, Theodor und Drischel, Friedrich.** Naturkunde für höhere Mädchenschulen und Mittelschulen. Tl 3: Der naturkundliche Stoff für 80 Lehrstunden des 6. Schuljahres in höheren Mädchenschulen und Mittelschulen, bearb. v. Friedrich Drischel. 2. verb. Aufl. Breslau (M. Woywod), 1903, (246). 24 cm. Geb. 1,50 M.

**Silloway, Perley Milton.** How to study a bird. Nature-study lesson. Missoula, Bull. Univ. Mont., No. 17, Biol. Ser. No. 5, 1903, (204-209).

**Stenhouse, E.** An introduction to Nature study. London, 1903, (x + 422). [Review], Nature, London, 68, 1903, (546).

**Thomson, J. A. and Rennie, J.** Outline of special course in natural history for Training College and King's students. Summer Session 1903. University of Aberdeen, 1903, (68). 8vo.

**Vogel, O. und Ohmann, O.** Zoologische Zeichentafeln. Im Anschluss an den Leitfaden für den Unterricht i. d. Zool. v. O. Vogel, K. Müllenhoff u. P. Röseler. H. 2: 7. verb. Aufl. (24 Taf., 17 S. Text); H. 3: 5. verb. Aufl. (16 Taf., 25 S. Text). Berlin (Winckelmann & S.), 1903. Taf. 22 x 32 cm. Text 22 cm. 1,80 M.

**Wächter, Christian.** Methodischer Leitfaden für den Unterricht in der Tierkunde. 4. verb. Aufl. Tl 2: Die wirbellosen Tiere. Braunschweig (F. Vieweg & S.), 1902, [Umschlagtitel 1903], (VIII + 150, mit 4 Taf.). 24 cm. 2 M.

**Walther, Ernst.** Der Unterricht in der Naturkunde nach biologischen Gesichtspunkten bearb. Abt. 1: Unterstufe. Leipzig (A. Hahn), 1903, (VIII + 160). 22 cm. 2 M.

**Wossidlo, Paul.** Leitfaden der Zoologie für höhere Lehranstalten. Tl 2: Der Mensch. Beschreibung des Baues und der Verrichtungen seines Körpers nebst Unterweisungen über die Gesundheitspflege. 10. verm. u. verb. Aufl. Berlin, (Weidmann), 1903, (VI + 105). 23 cm. Geb. 1,20 M.

## 0060 INSTITUTIONS, MUSEUMS, COLLECTIONS. ECONOMICS.

### GENERAL

**Öiderin, T.** Einiges über lateinische Transcription russischer Namen. Rev. Russ. Ent., Jaroslavl, 3, 1903, (228).

### INSTITUTIONS, MUSEUMS, AQUARIA.

BUREAU OF ANIMAL INDUSTRY, U. S. Department of Agriculture. Nineteenth annual report . . . for the year 1902. Washington, 1903, (651, with pl.).

List of Bird Skins offered in Exchange by the Philippine Museum. Manila, Bull. Philippine Mus., 2, 1903, (1-8). Separate. 22.8 cm.

**Agassiz, Alexander.** Preliminary report and list of stations. With remarks on the deep-sea deposits by Sir John Murray. (Reports on the scientific results of the expedition to the tropical Pacific, in charge of Alexander Agassiz, by the U. S. Fish Commission steamer "Albatross" from August, 1899, to

**March, 1900.** Commander Jefferson F. Moser, U.S.N., commanding.) Cambridge, Mass., Mem. Mus. Comp. Zool. Harvard Coll., **26**, 1902, (21 + 1-114, with 21 charts). Separate. 28.8 cm.

**Behn, Heinrich.** Die geographische Naturaliensammlung des Dorotheenstädtischen Realgymnasiums und ihre Verwendung beim Unterricht. Schluss. (Wissenschaftliche Beilage zum Jahresbericht des Dorotheenstädtischen Realgymnasiums zu Berlin. Ostern 1903.) Berlin (Wiedmann), 1903, (29). 25 cm. 1 M.

**Bolan, Heinrich.** Der zoologische Garten [in Hamburg]. [In: Hamburg in naturwissenschaftl. u. medizin. Beziehung]. Hamburg, 1901, (249-251).

**Brettfuss, L. L.** Liste des stations dans la Mer de Barents et des travaux de l'Expédition pour l'exploration industrielle et scientifique des côtes de Murman, faites en ces stations 1902. (Russ.) St. Peterburg, Ann. Mus. Zool. Ac. Sc., **8**, 1903, (VIII).

**Bureau, Edouard.** Collections entomologiques, botaniques et géologiques, offertes au Muséum d'histoire naturelle de Nantes. Nantes, Bul. soc. sci., (sér. 2), t. 3, **18**, 1903, (VI-XII).

**Cori, Carl [Isidor].** Anregung und Vorschlag zu einem Zusammenschluss der zoologischen und biologischen Meeresstationen, insbesondere zum Zwecke gemeinsamer Erforschung des Meeres. Verh. Ges. D. Natf., Leipzig, **74**, (1902), II, 1, 1903, (149-151).

**Dexler, Hermann.** Bericht über eine Reise nach Australien zum Zwecke der Erwerbung anatomischen und entwicklungsgeschichtlichen Materials vom Dugong. Dtsch. Arbeit, Prag, **1**, (1901), 1902, (552-562).

**Hennicke, Carl R.** Biologische Museen. Natur u. Haus, Dresden, **11**, 1903, (225-226).

**Lankester, E. Ray.** Catalogue of the books, manuscripts, maps and drawings in the British Museum Natural History. [With an introduction by B. B. Woodward who is responsible for the preparation of the work. To be completed in about 4 volumes.] Vol. I. A-D. London, 1903, (VIII + 500). 4to.

(n 2-9053)

**McFarland, F. M.** The Hopkins seaside laboratory. J. Appl. Microsc., Rochester, N.Y., **5**, 1902, (1869-1875, with text fig.). Separate. 24 cm.

**Mayer, Alfred** Goldsborough. A laboratory for the study of Marine Zoology in the tropical Atlantic. Pop. Sci. Mon., New York, N.Y., **64**, 1903, (41-47).

**O[bsorn], H[enry] F[airfield].** The Cope Pampean collection [representing the Pleistocene fauna of South America, American Museum of Natural History]. Science, New York, N.Y., (N. Ser.), **17**, 1903, (157-158).

**Peel, C. V. A.** The zoological gardens of Europe, their history and chief features. London, 1903, (xiv + 256, with pls.). 8vo.

**Perrier, E.** Le Muséum d'Histoire naturelle et les Colonies françaises. Rev. gén. sci., Paris, **14**, 1903, (693-700).

**Präbham, Hans.** Die neue Anstalt für experimentelle Biologie in Wien. Verh. Ges. D. Natf., Leipzig, **74**, (1902), II, 1, 1903, (152-155).

**Roh, L.** Provincial-Museen als Volksbildungsstätten. Bilder aus der zoolog. Abteilung des Altonaer Museums. Natur u. Schule, Leipzig, **2**, 1903, (263-271).

**Ritter, William Emerson.** Marine biology and the marine laboratory at San Pedro. Berkeley, Univ. Cal. Chron., **5**, 1903, (222-230).

**Woodworth, W. McM.** Annual report of the keeper of the museum of comparative zoology at Harvard College, to the president and fellows of Harvard College for 1902-1903. Cambridge, Mass., 1903, (35). 23 cm.

**Wortman, J. L.** Studies of Eocene Mammalia in the Marsh collection, Peabody museum. [Harvard univ.] [Primates]. Amer. J. Sci., New Haven, Conn., (Ser. 4), **16**, 1903, (345-368, with 2 pls.); Part 2. Primates [with discussion of the phylogeny and classification of the order]; *ib.*, **15**, 1903, (163-176, 399-414, 419-436).

#### COLLECTIONS.

**Austen, E. E.** A monograph of the Tsetse-flies (genus *Glossina* Westwood) based on the collection in the British



Museum. With a chapter on the mouth parts by H. J. Hansen. London, (British Museum), 1903, (IX + 313, 9 pls.). [Reviews], Zoologist, London, 1903; Nature, London, **69**, 1903, (123).

**Clarke, John M[ason] and Ruedemann, Rudolf.** Catalogue of type specimens of Palaeozoic fossils in New York state museum. Albany Univ., N.Y., Bull. St. Mus., No. **65**, 1903, (847). 23 cm.

**Coulon, L.** Un séjour à Dieppe au point de vue de l'histoire naturelle. Elbeuf, Bul. soc. étud. sci. nat., **20**, 1901, [1902], (109-128).

**Dahl, Friedrich.** Winke für ein wissenschaftliches Sammeln von Thieren. Berlin, SitzBer. Ges. natf. Freunde, **1903**, (444-475).

**Ehrenbaum, [E.]** Biologische Meeresstation für Canada und das Studium der Sandmuschel (*Mya arenaria*). Berlin, Mitt. D. Seefischereiver., **18**, 1902, (454-457).

**Grevé, C.** Der Tierbestand des zoologischen Gartens zu Moskau. Zool. Garten, Frankfurt a. M., **44**, 1903, (6-13).

**Hennicke, Carl R.** Biologische Museen. Natur u. Haus, Dresden, **11**, 1903, (225-226).

**Lankester, E. R.** Handbook of Instructions for collectors, issued by the British Museum (Natural History). London, 1902, (vi + 137).

**Lebedincev, A.** Die Hydrobiologie auf den internationalen Ausstellungen für Fischereigewerbe in St. Petersburg (1902) und für Hydrobiologie der Fischerei und Fischzucht in Moskau (1903). (Russ.) St. Petersburg, 1903, (81, mit 7 fig.). 25 cm.

**Meyer, A. B.** 3. Bericht über einige neue Einrichtungen des kgl. zoologischen und anthropologisch-ethnographischen Museums in Dresden. Dresden, Abh. zool. Mus., **10**, (1902-1903), 1903, Nr. 5, (VI + 25, mit 20 Taf.).

**Oates, E. W.** Catalogue of Birds' Eggs. Vol. II. 1902. (400, 5 pls.). [Review], Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (133).

— [assisted by Capt. Saville (i. Reid).] Catalogue of the collection of Birds' Eggs in the British Museum (Natural History). Vol. III. *Carinatae*.

(Psittaciformes-Passeriformes). London, 1903, (XXIV + 352, with X coloured pls.). 8vo.

**O[sborn], H[enry] F[airfield].** The Pope Pampean collection [representing the Pleistocene fauna of South America, American Museum of Natural History]. Science, New York, N.Y., (N. Ser.), **17**, 1903, (157-158).

**Pettit, Rufus H.** Instructions for collecting insects. J. Appl. Microsc., Rochester, N.Y., **6**, 1903, (2363-2364).

**Plate, [Ludwig].** Beiträge zur Technik des Sammelns, der Konservierung und der Aufstellung biologischer Gruppen mariner Tiere. Verh. D. zool. Ges., Leipzig, **13**, 1903, (143-158).

**Ravenel, W[illiam] de C[hastignier].** The Pan-American exposition—report of the representative of the United States fish commission. Washington D.C., Rep. U. S. Com. Fish, **1901**, 1902, (291-351, with pl.).

**Sanson, Louis et Lecomte, L.** Les oiseaux remarquables du musée d'Elbeuf. Elbeuf, Bul. soc. étud. sci. nat., **20**, 1901, [1902], (77-85).

**Schaffer, Josef.** Versuche mit Entkalkungsflüssigkeiten. Zs. wiss. Mikrosk., Leipzig, **19**, 1903, (308-328, 441-463).

**Skorikov, Aleksandr Stepanovič.** Bericht über die Thätigkeit der Biologischen Wolga-Station während des Jahres 1902. (Russ.) Saratov, Ježeg. Volžskoj biol. st., **1903**, 1, (3-18).

**Smith, E. J.** Pests and grease. [Criticism of paper by F. W. Dod]. Philadelphia, Pa., Ent. News, Acad. Nat. Sci., **13**, 1902, (244-246).

**South, R.** Catalogue of the collection of palaearctic butterflies formed by the John Henry Leech, and presented to the Trustees of the British Museum by his mother Mrs. Eliza Leech. London, 1902, (vi + 228, 2 pls.). 4to. [Review], Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (526).

**Theobald, F. N.** Report on a collection of mosquitoes and other flies from equatorial East Africa and the Nile provinces of Uganda. Reports Sleeping sickness Comm. No. 3, London (Royal Society), 1903, (33-42, with map).

**Williamson, E. B.** To collect pairs of dragonflies. Poisoning specimens. Philadelphia, Pa., Ent. News, Acad. Nat. Sci., **13**, 1902, (59-60).

**Williamson, Mrs. M. Burton.** On cataloguing a collection of shells. Nautilus, Boston, Mass., **17**, 1903, (39-41).

**Zacharias, Otto.** Ein Wurfnetz zum Auffischen pflanzlicher und thierischer Planktonwesen. Zool. Anz., Leipzig, **26**, 1903, (201-203); [abstract], London, J. R. Microsc. Soc., **1903**, (167).

**Zimmermann, Hans.** Eine neue Montierungsmethode kleiner und kleinster Sammlungsobjekte für Schausammlungen. Zool. Anz., Leipzig, **27**, 1903, (46-47).

#### ECONOMICS.

L'avenir du mouton. Paris, Bul. soc. nat. acclim., **50**, 1903, (113-133). [6019 6031].

Congrès international d'aquiculture et de pêche. Mémoires et comptes-rendus des séances publiés par J. Perard et Maire. (Exposition universelle de 1900). Paris (Challamel), 1901, (XLIII + 602). 25 cm. 5.

État de la question piscicole en 1902. Par M. V. Nature, Paris, (1er sem.), **31**, 1903, (330-332, av. fig.). [5415].

L'écaille (suite). Naturaliste, Paris, (ser. 2), **24**, 1902, (122-123). [5631].

Le chien de Saint-Bernard. Par Jean-Pierre M. Eleveur, Paris, **19**, 1903, (197-199, 233-234, 248-249, av. fig.). [6023 6031].

Les migrations de la sardine et la crise sardinière. Par M., P. de. Nature, Paris, (1er sem.), **31**, 1903, (138-139). [5419 5431].

Les races espagnoles. La Castillane et la Castalane. Par N. Aviculteur, Paris, **23**, 1903, (30-32). [5823 5831].

Lotta contro gli insetti che danneggiano il grano. Da N. N. Bollettino di Entomologia agraria, Padova, **9**, 1902, (206-209).

Races anglaises (poules). Par M. d'H. Eleveur, Paris, **19**, 1903, (224-226, 235-238, 245-246, av. fig.). [5823 5831].

Races de poules espagnoles. Par M. d'H. Eleveur, Paris, **19**, 1903, (53-54, (p 2-0053)

77-78, 89-90, 101-152, av. fig.). [5823 5831].

Races de poules italiennes. Par M. d'H. Eleveur, Paris, **19**, 1903, (113-115, 125-126, av. fig.). [5823 5831].

Race Dorking. Par M. d'H. Eleveur, Paris, **19**, 1903, (211-213). [5823 5831].

FOREST, FISH AND GAME COMMISSION [of New York]. Seventh annual report . . . Albany, 1902, (93, with pl.). 23 cm. [0227 gg].

U. S. DEPARTMENT OF AGRICULTURE DIVISION OF ENTOMOLOGY. [Leland Ossian Howard, Entomologist.] Some miscellaneous results of the work of the division of entomology. 5. Washington, D.C., Bull. U. S. Dept. Agric., Div. Ent., (N. Ser.), No. **30**, 1901, (98, with pl.); 6, ib., No. **36**, 1902, (110, with pl.).

**Annett, H. E., Dutton, J. E. and Elliott, J. H.** Report of the Malaria Expedition to Nigeria. Liverp. Sch. Trop. Medicine, Mem. 3. London (Longmans, Green and Co.), 1902, (68, 2 pls., besides charts and illustrs.).

**Balfour, A.** Mosquitoes and Steamers. J. trop. Med., London, **6**, 1903, (253).

**Bandi, I.** Yellow fever and mosquitoes. J. trop. Med., London, **6**, 1903, (254-256).

**Banks, Nathan.** Principal insects liable to be distributed on nursery stock. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **34**, 1902, (46). 23 cm.

**Barpi, U.** L'Istituto di anatomia normale della R. Scuola superiore di Medicina veterinaria di Napoli e Catalogo dei preparati del Museo. Napoli (tip. Guerrera), 1902, (54).

**Beardale, A. E.** The destruction of trout fry by hydra. [*Hydra pallida* n. sp.] Washington, D.C., Bull. U. S. Fish Com., **22**, (1902), 1903, (155-160).

**Berlese, Antonio.** Contro la *Cochylis*. Bollettino di Entomologia agraria, Padova, **9**, 1902, (82-86 con fig.).

**Breitfuss, L. L.** Liste des stations dans la Mer de Barents et des travaux de l'Expédition pour l'exploration industrielle et scientifique des côtes de Murman, faites en ces stations 1902. (Russ.) St. Peterburg, Ann. Mus. zool. Ac. Sc., **8**, 1903, (VIII).

**Bruce, D., Nabarro, D. and Greig, E. D. W.** Can the Uganda Tsetse fly (*Glossina palpalis*) carry the *Trypanosoma* found in sleeping sickness cases to healthy animals? London (Royal Soc.), Rep. Sleeping-sickness Comm. No. 4, (56-64, map).

**Buccolini, T.** Su alcuni insetti nocivi al tabacco. Bollettino di Entomologia agraria, Padova, 9, 1902, (56-59).

**Busck, August.** Notes on enemies of mushrooms [Snails, roaches, Diptera and mites] and on experiments with remedies. Washington, D.C. Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. 33, 1902, (32-35).

**Castellani, A.** Researches on the etiology of sleeping-sickness. J. trop. Med., London, 6, 1903, (167-171, 1 pl. and 2 text-figs.).

——— Presence of *Trypanosoma* in Sleeping Sickness. Rep. S. S. Comm. (Royal Society) 1, (1-10, 2 tables.) [Identical with preceding].

——— Adult forms and developmental forms of the *Trypanosoma* found in sleeping sickness. Rep. S. S. Comm. II, (9-13, pls. 1, 2).

——— Some observations on the morphology of the *Trypanosoma* found in sleeping sickness. Brit. Med. J., London, 1903, 1, (1431, 1432, 1 text-fig.).

——— On the discovery of a species of *Trypanosoma* in the cerebrospinal fluid of cases of sleeping-sickness. London, Proc. R. Soc., 71, 1903, (501-508, 2 tables); Lancet, London, 1903, 1, (1735, 1736); [abstract], Nature, London, 68, 1903, (116).

**Candell, A. N.** Notes on Colorado insects. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. 33, 1902, (35-38).

**Chapman, Frank M[ichler].** The economic value of birds to the State. New York, Rep. Forest Fish Game Com., Albany, 7, 1903, (1-66, with pl.). Separate. 28.4 cm.

**Chittenden, F[rank] H[urlbut].** Some insects injurious to the violet, rose and other ornamental plants: A collection of articles dealing with insects of this class. [Rev. Ed.] Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N.

Ser.), No. 27, 1901, (114 with pl.). 23 cm.

**Chittenden, F[rank] H[urlbut].** Some insects injurious to vegetable crops. A series of articles dealing with insects of this class. Washington D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. 33, 1902, (117). 23 cm.

——— Some insects recently injurious to truck crops. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., No. 40, 1903, (113-120.).

**Chobaut, A.** Les insectes du biscuit de troupe. Moyen de préservation. Paris, C.-R. cong. soc. sav. en 1902, 1903, (102-107).

**Christy, C.** Malaria: the mode of entry of the spore into the red blood-corpuscle. Brit. Med. J., London, 1903, 2, (645, 1 text fig.).

**Clarke, J. J.** Protozoa and Disease. Part I. London (Baillière, Tindall & Cox), 1903, (xiv + 177, 91 figs. in text). 8vo. [Review], Lancet, London, 1903, 2, (891-892).

**Crepin, J.** Observations sur les meilleures races de chèvres. Paris, Bul. soc. nat. acclim., 49, 1902, (413-421); 50, 1903, (33-46).

——— Contribution à l'étude zootechnique de la chèvre alpine. Paris, Bul. soc. nat. acclim., 50, 1903, (1-10).

**Cunningham, J. T.** Report . . . on the experiments in oyster and lobster culture in 1902, with summary of the work from 1897. Falmouth, Rep. R. Cornwall Polyt. Soc., 70, 1903, (27-39).

**Donovan, C.** The etiology of one of the heterogeneous fevers of India. Brit. Med. J., London, 1903, 2, (1401).

**Dutier, J.** Deux races belges. Campine et Coucou de Malines. Aviculteur, Paris, 23, 1903, (5-8, av. fig.).

——— Les Wyandottes. Aviculteur, Paris, 23, 1903, (18-20, av. fig.).

——— Les Dorking. Aviculteur, Paris, 23, 1903, (42-44, av. fig.).

——— Leghorn. Aviculteur, Paris, 23, 1902, (114-116, 183-185, av. fig.).

——— Cochinchinois et Bantam de Pékin. Aviculteur, Paris, 23, 1903, (174-176, av. fig.).

- Dutier, J.** La race de Barbézieux. Aviculteur, Paris, **23**, 1903, (197-200).
- Le Yokohama. Aviculteur, Paris, **23**, 1903, (222-224).
- Les Nangasaki. Aviculteur, Paris, **23**, 1903, (247-248, av. fig.).
- Dutton, J. E.** Report of the Malaria Expedition to the Gambia, 1902. Liverp. Sch. Trop. Medicine, Mem. X. London (Longmans, Green & Co.), 1903, (46, pls.). [Review], Nature, London, **68**, 1903, (429).
- and **Todd, J. L.** First Report of the Trypanosomiasis Expedition to Senegambia (1902) of the Liverpool School of Tropical Medicine and Medical Parasitology. London (Longmans, Green & Co., for the University Press of Liverpool), 1903, (50 + vii, 5 pls. and numerous charts). 4to. [Review], Lancet, London, 1903, 2, (1727, 1728).
- Fernald, H. T.** Some common insect pests of the farmer. Pennsylvania, Dept. Agric., Bull., Harrisburg, No. **99**, 1902, (32, with pl.); Pennsylvania, Rep. Dept. Agric., Harrisburg, 8, pt. 1, **1902**, 1903, (386-411, with pl.).
- Forest, aind.** L'élevage des autruches dans la colonie du Cap. Naturaliste, Paris, (sér. 2), **25**, 1903, (154-158).
- Fougères, marquis de.** Destruction des rats par le virus Danysz. Paris, Bul. soc. nat. acclim., **50**, 1903, (81-83).
- Galliani, A.** La pesca delle spugne a Trapani. Neptunia, Venezia, **18**, 1902, (111-113).
- Galli-Valerio, B.** The part played by the fleas of rats and mice in the transmission of bubonic plagues. J. trop. Med., London, **5**, 1903, (33-35).
- Gillette, C. P.** Notes on some Colorado insects. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **31**, 1902, (51-55).
- Grandier, Laurent.** Chèvres blanches sans cornes. Aviculteur, Paris, **23**, 1903, (125-128, 137-140).
- Hauscher, J. und Hersche.** Bericht über den Besuch bayerischer Fischzuchtanstalten. Schweiz. Fischerei Ztg, Pfäffikon, **10**, 1902, Beilage No. 1, (16).
- Hineck, G.** Deperimento delle viti per causa di un acaro (*Coepophagus echinopus*). Bollettino di Entomologia agraria, Padova, **9**, 1902, (33-35).
- Howard, I[eland] O[ssian].** A new industry brought by an insect. [Introduction of the Smyrna fig into U.S.] The Forum, New York, **30**, 1901, ([605]-607).
- Jacommet, Alphonse.** A la ferme d'autruches de Nice. Aviculteur, Paris, **23**, 1903, (53-56, av. fig.).
- La poule de Livourne. Aviculteur, Paris, **23**, 1903, (136-137).
- Lamarche, C. de.** L'élevage du lapin et le lapin angora. Paris, Bul. soc. nat. acclim., **50**, 1903, (145-151).
- Lapliasse, Armand.** Les combattants anglais. Aviculteur, Paris, **23**, 1903, (77-79, av. fig.).
- Indiens et Malais. Aviculteur, Paris, **23**, 1903, (91-93, av. fig.).
- Les cou-nu. Aviculteur, Paris, **23**, 1903, (282-284, av. fig.).
- Leshman, W. B.** On the possibility of the occurrence of Trypanosomiasis in India. Brit. Med. J., London, **1903**, 1, (1252-1254, 2 text figs.).
- Lesseux, C. de.** Pisciculture du lavaret dans le lac d'Aiguebelette (Savoie). Nature, Paris, (1er sem.), **31**, 1903, (234, av. fig.).
- Lotter, J. W.** Katechismus der Bienenzucht. 6 Aufl. Nürnberg (F. Korn), 1903, (IV + 234). 18 cm. 1,60 M.
- Lupia, Ferdinand.** Der Werte eines Bienenvolkes für die Landwirtschaft. Carinthia II, Klagenfurt, **93**, 1903, (136).
- McCook, Henry Christopher.** Insects and civilization. Harper's Monthly Magazine, New York and London, **105**, 1902, ([79]-82).
- Manson, P.** Trypanosomiasis on the Congo. Brit. Med. J., London, **1903**, 1, (720-721); [abstract], London, J. R. Microsc. Soc., **1903**, (307).
- Tropical Diseases. A Manual of the Diseases of Warm Climates. New and Revised Edition. London (Cassell & Co.), 1903, (XXIV + 756, 2 pls. and 130 text figs.). [Contains a general account of Malarial and other Protozoan parasites.] 8vo.

**Mariatt, Charles** [ester]. Applied entomology in Japan. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., No. 40, 1903, (56-63, with pl.).

**Measham, Miss C. E. C.** Malaria and the mosquito. Rochester Nat., 3, 1903, (185-191).

**Mégnin, Pierre.** Des terriers en général et du fox terrier en particulier. Eleveur, Paris, 19, 1903, (7-11, 29-30, av. fig.).

**Mercer, W. F.** A few insects and plant diseases of special interest to farmers. Columbus, Ohio, Univ. Bull. St. Univ., (N. Ser.), 3, 1901, (126-138).

**Newhall, Charles Stedman.** Sheep and the forest reserves. The Forum, New York, 30, 1901, (710-716).

**Ninni, Emilio.** La caccia degli uccelli acquatici (a sciopon) nelle lagune di Venezia. Neptunia, Venezia, 18, 1902, (87-92).

**Nuttall, G. H. F.** Note on the supposed transmission of plague by fleas and of relapsing fever by bed-bugs. J. trop. Med., London, 5, 1903, (65).

**Osborn, Herbert.** Insects of the season in Ohio. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., No. 40, 1903, (45-47).

**Plimmer, H. G.** The parasitic theory of cancer. Brit. Med. J., London, 1903, 2, (1511-1515).

**Quinet.** Le Musée d'histoire naturelle de Bruxelles. Ce qu'il est et ce qu'il devrait être. Chasse et pêche, Bruxelles, 1902, (220-221).

**Rane, F. William.** Plant environment and insect depredations. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., No. 40, 1903, (84-86).

**Raspail, Xavier.** Protection des semences contre les corbeaux. Paris, Bul. soc. nat. acclim., 50, 1903, (169-170).

**Robinson, Benjamin** [Lincoln]. Insecticides used at the Gray herbarium. Rhodora, Boston, Mass., 5, 1903, (237-247).

**Romanin-Jacur, Giuseppe.** Osservazioni sopra alle zanzare e sopra ad alcune condizioni locali della città di Padova e dei suoi immediati dintorni in rapporto alla malaria. Roma, Società

studi malaria, 3, 1902, (256-278, con 1 tav.).

**Ross, R.** Report on Malaria at Ismalia and Suez. Liverp. Sch. Trop. Medicine, Mem. IX. London (Longmans, Green & Co.), 1903, (24).

**Sambon, L. W.** Principles determining the geographical distribution of disease. J. trop. Med., London, 5, 1903, (101-106).

———. Sleeping-sickness in the light of recent knowledge. J. trop. Med., London, 6, 1903, (201-209, 2 text-figs.).

**Schivardi, P.** Paludi, risaie ed anofeli senza malaria. Malpighi, Gazzetta medica, Roma, 23, 1902, (169-175).

**Schmidt, Peter.** Einige Beobachtungen über die Seefischerei in Japan. Berlin, Mitt. D. Seefischereiver., 19, 1903, (38-68).

**Scott, Thomas.** Some further observations on the food of fishes with a note on the food observed in the stomach of a common porpoise. Glasgow, Rep. Fish. Board, 21, pt. 3, 1903, (218-227, 2 text-figs.).

**Sennebogen, E.** Sulla malattia delle anguille. Neptunia, Venezia, 18, 1902, (39-41).

**Sforza, C.** Maceratoi e zanzare nel contado di Bologna. Riv. igiene sanità pubb., Torino, 13, 1902, (59-63).

**Smith, E. J.** Pests and grease. [Criticism of paper by F. W. Dod]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (244-246).

**Smith, Hugh M.** The French sardine industry. Washington, D.C., Bull. U. S. Fish Com., 21, 1901, (1-26, with text fig. and pl.).

**Stephens, J. W. and Christophers, S. R.** The practical study of malaria and other blood parasites. London (Longmans Green & Co.), 1903, (vi + 378 + XXXV, 2 pls., 93 text-figs.). 8vo.

———. Reports to the Malaria Committee. Eighth series. London (Royal Society), 1903, (77).

**Surface, H. A.** Insects injurious to cucurbitaceous plants. Pennsylvania, Rep. Dept. Agric., Harrisburg, 3, pt. 1, (1902), 1903, (529-550, with pl.); Pennsylvania, Dept. Agric., Bull., Harrisburg, No. 96, 1902, (30, with pl.). 23.5 cm.

**Surface, H. A.** The economic value of our native birds. 1. An analytic key for the determination of Pennsylvanian birds. 2. General discussion of our native birds by orders and families. Pennsylvania, Dept. Agric., Div. Zool. Q. Bull. Harrisburg, 1, No. 2, 1903, (16, with pl.).

——— The economic value of our native birds. Part 2. By orders and families. Order 8. Raptores. The birds of prey. Family 11. *Cathartidae*. The vultures. Family 12. *Falconidae*. The hawks, etc. Pennsylvania, Dept. Agric., Div. Zool. Q. Bull., Harrisburg, 1, No. 3, 1902, (32). 23.3 cm.

**Taylor, L.** Second Progress Report of the Campaign against Mosquitoes in Sierra Leone. Liverp. Sch. Trop. Medicine, Mem. 5, pt. 2. Liverpool (University Press) 1902, (13).

**Theobald, F. N.** British Museum (Natural History). First report on Economic Zoology. London, 1903, (xxiv + 192). 8vo. Includes "a classification of animals from the point of view of Economic Zoology," by E. Ray Lankester, (xi-xxiv).

**Todd, R. A.** Notes on the Invertebrate fauna and fish-food of the bays between the Start and Exmouth. Plymouth, J. Mar. Biol. Ass., 6, 1903, (541-561).

**Underwood, William Lyman.** Mosquitoes and suggestions for their extermination. Pop. Sci. Mon., New York, N.Y., 63, 1903, (453-466).

——— The mosquito nuisance and how to deal with it; prepared for the Board of health of Belmont, Mass. Boston (W. B. Clarke co.) 1903, (15 + [1], with illustr.). 22.5 cm.

**Voltoina, V.** Osservazioni intorno alla semina delle anguille nelle valli salve. Neptunia, Venezia, 18, 1902, (174-176).

**Wacquez, Paul.** Communication sur les races de pigeons dits espagnols présentées par M. Salgot à l'Exposition d'aviculture de Madrid. Paris, Bul. soc. nat. acclim., 50, 1903, (11-13).

**Watson, M.** A note on the parasites of a case of malignant malaria, with a discussion of the development of the crescent. J. Trop. Med., London, 6, 1902, (221-223, 1 pl.).

**Webster, F. M.** The price of dairy products as influencing the abundance of some insects. New York, N.Y., J. Ent. Soc., 11, 1903, (59-60).

**Wilcox, Earley Vernon.** Sheep and the forests. The Forum, New York, N.Y., 31, 1901, ([311]-317).

## 0070 PRINCIPLES OF NOMENCLATURE.

**Allen, J[oe]l A[saph].** Zimmermann's "Zoologiae geographicae" and "Geographische Geschichte" considered in their relation to mammalian nomenclature. New York, N.Y., Bull. Amer. Mus. Nat. Hist., 16, 1902, (13-22).

——— Vernacular names of birds. Auk, Cambridge, Mass., (N. Ser.), 20, 1903, (70-73).

**Banks, Nathan.** An application of the law of priority [to the 1842 rules of the British Association]. Science, New York, N.Y., (N. Ser.), 17, 1903, (115).

——— Those manuscript names. Science, New York, N.Y., (N. Ser.), 17, 1903, (508).

**Bather, F. A.** The publication of rejected names. Science, New York, N.Y., (N. Ser.), 17, 1903, (389-390).

**Berlepsch, Haas Graf von.** On the nomenclature of some Peruvian birds. Ibis, London, 1903, (135-137).

**Brown, Arthur Erwin.** Some recent applications of the A. O. U. code. Science, New York, N.Y., (N. Ser.), 18, 1903, (535).

**Bradley, J. Chester.** Vernacular names again. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (26).

**Bruce, D.** Nomenclature of Malaria; a suggestion. Lancet, London, 1903, 1, (131, 132); Brit. Med. J., London, 1903, 1, (15).

**Cicérin, T.** Einiges über lateinische Transcription russischer Namen. Rev. Russ. Ent., Jaroslavl, 3, 1903, (228).

**Cockerell, T[heodore] D[ru] A[lison].** The publication of rejected names. Science, New York, N.Y., (N. Ser.), 17, 1903, (189, 546-547).

——— Orthoplasia, etc. Science, New York, N.Y., (N. Ser.), 17, 1903, (275).

**Cockerell**, T[heodore] D[rui] A[lison]. Some overlooked zoological generic names. *Nature*, London, **68**, 1903, (526).

**Cook**, O[rator] F[uller]. Types of pre-Linnaean genera. *Science*, New York, N.Y., (N. Ser.), **17**, 1903, (350-352).

**Di Gregorio**, Marchese Antonio. On some names (chiefly Linnean) of animals and plants erroneously paired in synonymy. Philadelphia, Pa., Proc. Amer. Phil. Soc., **42**, 1903, (263-264).

**Doran**, Edwin W. Vernacular names of animals. [Principles of compound words]. Amer. Nat., Boston, Mass., **37**, 1903, (550-555). Also published separately. 24 cm.

——— Vernacular names of insects. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., No. **40**, 1903, (108-111).

——— The vernacular names of birds. Auk, Cambridge, Mass., (N. Ser.), **20**, 1903, (33-42).

**Gill**, Theo[dore] [Nicholas]. Walbaum and binomialism. *Science*, New York, N.Y., (N. Ser.), **17**, 1903, (744-746).

**Grote**, Radcliffe A. Ueber Nomenclaturregeln. Insektenbörse, Leipzig, **20**, 1903, (173).

**Jordan**, David Starr. The types of Linnean genera. *Science*, New York, N.Y., (N. Ser.), **17**, 1903, (627-628).

**Kendall**, H. Some notes on vernacular names. Emu, Melbourne, **3**, 1903, (51-54).

**Kleinschmidt**, O. Meine neue Nomenclatur. Ornith. Monatsber., Berlin, **11**, 1903, (156).

**Knowlton**, F[rank] H[all]. The publication of rejected names. *Science*, New York, N.Y., (N. Ser.), **17**, 1903, (506-508).

**Linstow**, [Otto] von. Die moderne helminthologische Nomenclatur. Zool. Anz., Leipzig, **26**, 1903, (223-229).

**Lönnberg**, E. On the names of the two species of skua with pointed tailfeathers. *Zoologist*, London, (Ser. 4), **7**, 1903, (338-342).

**Loomis**, Everett Mills. Recognition of geographic variation in nomenclature.

[With bibliography.] Auk, Cambridge, Mass., (N. Ser.), **20**, 1903, (294-299).

**Lühe**, M[ax]. Eine nomenclatorische Berichtigung betr. die Cestoden-Gattung *Amphitreus* R. Bl. Centrabl. Bakt., Jena, Abt. 1, **33**, Originale, 1903, (608-609).

**Norman**, A. M. New generic names for some Entomostraca and Cirripedia. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (367-369).

**Nutting**, C[harles] C[leveland]. The perplexities of a systematist. [Address of the Chairman of the Section of Zoology and vice-president of the American Association for the Advancement of Science. Read at the Washington meeting, January 27, 1902.] Proc. Amer. Ass. Adv. Sci., Washington, D.C., **52**, 1903, (439-454); *Science*, New York, N.Y., (N. Ser.), **17**, 1903, (63-72).

**Pickard**, Fredk. On rules of nomenclature. Zool. Anz., Leipzig, **26**, 1903, (441-447).

**Poche**, Franz. Zur Nomenclatur der Orthopteren, nebst einigen allgemein nomenclatorischen Bemerkungen in Hinsicht auf die neuen internationalen Nomenclaturregeln. Zool. Anz., Leipzig, **26**, 1903, (233-241).

**Poussar**, Volter. Die ornithologische Nomenclatur des *Uria troile*. Tidskr. Jäg. Fisk., Helsingfors, **1903**, 2, (62-63).

**Prout**. [Binomials? of early authors.] Ent. Rec., London, **15**, 1903, (13-14).

**Rothschild**, Hon. W. and **Jordan**, K. A revision of the Lepidopterous family *Sphingidae*. Nov. Zool., Tring, **9**, Supplement, 1903, (cxxxv + 972, with 67 pls.).

**Rozan**, C. Les animaux dans les proverbes. 1<sup>re</sup> et 2<sup>e</sup> parties. Paris (Ducrocq), [1902], 1<sup>re</sup> partie, (384), 2<sup>e</sup> partie, (381). 18 cm.

**Sciator**, P. L. On the generic name *Izoreus*. Ibis, London, **1903**, (142).

**Sharpe**, R. Bowdler. A hand-list of the Genera and species of Birds (Nomenclature Avium tum Fossilium tum Viventum). Vol. IV, London, 1903, (XII + 392).

**Sherborn**. [Binomials of early authors.] Ent. Rec., London, **15**, 1903, (65-66).

**Stejneger, Leonhard.** A new name for the Hawaiian bird genus [*Oreomystis* n. nom.]. Washington, D.C., Proc. Biol. Soc., **16**, 1903, (11-12). Separate. 233 cm.

**Stone, Witmer.** The significance of trinomials. Condor, Santa Clara, Cal., **5**, 1903, (43-45).

———. On the generic names of the North American owls. Auk, Cambridge, Mass., (N. Ser.), **20**, 1903, (272-276).

**Thor, Sig.** Bemerkungen zur neueren "Hydrachniden" Nomenklatur. Nyt. Mag. Naturv., Kristiania, **41**, 1903, (65-68).

**Verrill, A[ddison] E[merly].** Note on the nomenclature of Bermuda birds. Amer. J. Sci., New Haven, Conn., (Ser. 4), **12**, 1901, (470-471).

**Watte E. R.** A matter of nomenclature. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (288).

**Williamson, G. A.** The nomenclature of Malaria. Brit. Med. J., London, **1903**, **1**, (823).

**Williston, S[amuel] W[endell].** Some osteological terms. Science, New York, N.Y., (N. Ser.), **18**, 1903, (829-830).

## 0090 TECHNIQUE.

**Andres, Angelo.** Di un nuovo strumento misuratore per la somatometria (somatometro a compasso). Milano, Rend. Ist. Lomb., (Ser. 2), **35**, 1902, (529-533, con 4 tav.).

**Bélousov, N.** Quelques méthodes d'injections des vaisseaux sanguins. (Russ.) Charikov, Trd. obšč. ispyt. priro., **37**, 1902, [1903], (307-311).

**Cameron, J.** A method of preparing lantern slides of histological objects. Edinburgh, Proc. Scot. Microsc. Soc., **3**, 1903, (350-352).

**Camerano, Lorenzo.** Ricerche somatometriche in Zoologia. [Conferenza.] Mon. zool. ital., Firenze, **13**, 1902, (Supplemento), (13-15).

**Dekhuysen, M. C.** Liquide fixateur isotonique avec l'eau de mer, pour les objets dont on ne veut pas éliminer les formations calcaires. Paris, C.-R. Acad. sci., **137**, 1903, (445-447).

**Fritsch, Karl.** Die Relieflupe. Soc. Entomol., Zürich, **17**, 1902, (82-84).

**Harris, H. F.** A modification of the Romanowsky stain. Centralbl. Bakt., Jena, Abt. 1, **34**, Originale, 1903, (188-191).

**Krasuskaja, A. A.** Die Technik der Corrosionspräparate. (Russa.) St. Petersburg, Bull. labor. biol., **VI**, **3**, 1903, (42-46).

**Lachi, P[ilade].** Un apparecchio per la rapida macerazione delle ossa. Mon. zool. ital., Firenze, **13**, 1902, (66-71, con 1 fig.).

**Löwit, M[oriz].** Ueber färberische Differenzen zwischen der Mastzellengranulation und der *Haemamoeba leucacemica magna*. Beitr. path. Anat., Jena, **33**, 1903, (113-122, mit 1 Taf.).

**Osborn, Herbert.** A method for mounting dry *Coccidae* for permanent preservation. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., No. **40**, 1903, (35-36).

**Plate, L[udwig].** Beiträge zur Technik des Sammelns, der Konservierung und der Aufstellung biologischer Gruppen mariner Tiere. Verh. D. zool. Ges., Leipzig, **13**, 1903, (143-158).

**Williamson, E. B.** To collect pairs of dragon flies. Poisoning specimens. Philadelphia, Pa., Ent. News. Acad. Nat. Sci., **13**, 1902, (59-60).

## 0207 STRUCTURE (OR MORPHOLOGY). [IN GENERAL; OR OF MORE THAN ONE OF THE CLASSES OF ANIMALS.]

### GENERAL.

**Farmer, J. B.** The structure of animal and vegetable cells. Sect. II. Lankester's Treatise on Zoology, q. v. Part I, fasc. 2, (1-46).

**Hertwig, O.** Eléments d'anatomie et de physiologie générales. La Cellule. Paris (Naud), 1903, (XIV + 428, av. fig.). 28 cm.

**Howes, G. B.** The morphological method and recent progress in zoology. London, Rep. Brit. Ass., **1902**, (618-635); Nature, London, **66**, 1902, (522-530); [reprint], Washington, D.C., Smithsonian Inst., Rep., **1902**, 1903, (11 + 581-608). Separate. 24.5 cm.



**Lesshaft, P. P.** Allgemeine Anatomie der Organe des vegetativen Lebens. (Russ.) St. Petersburg, Bull. labor. biol., VI, 3, 1903, (47-68).

**Röhde, E[mil].** Untersuchungen über den Bau der Zelle. I. Kern und Kernkörper. Zs. wiss. Zool., Leipzig, 73, 1903, (497-682, mit 9 Taf.).

**Saint-Hilaire, K. K.** Untersuchungen über den Stoffwechsel in der Zelle und in den Geweben. (Russ.) St. Petersburg, Trav. Soc. nat., XXXIII, 2, 1903, (139-310, 356-363); deutsches Rés., (311-355, 364-370, Taf. I-V).

**Studnická, F. K.** Schematische Darstellungen zur Entwicklungs-geschichte einiger Gewebe. Anat. Anz., Jena, 22, 1903, (537-556, mit 2 Taf.).

**Warren, E.** A preliminary attempt to ascertain the relationship between the size of cell and the size of body in *Daphnia magna* Straus. Biometrika, Cambridge, 2, 1903, (255-259).

#### COMPARATIVE ANATOMY.

**Cameron, J.** Homologies of the sense organs. J. Anat. Physiol., London, 17, 1903, (XLII-XLIII).

——— On the origin of the pineal body as an amesial structure, deduced from the study of its development in Amphibia. Anat. Anz., Jena, 23, 1903, (394-395).

**Carpenter, G. H.** On the relationships between the classes of Arthropoda. Dublin, Proc. R. Irish Acad., 24, 1903, (320-360); [abstract], London, J. R. Microsc. Soc., 1904, (178).

**Gaskell, W. H.** The origin of Vertebrates deduced from the study of *Ammonoetes*. Part XI. The origin of the Vertebrate body cavity and excretory organs; the meaning of the somites of the trunk and of the ductless glands. J. Anat. Physiol., London, 17, 1903, (168-219).

**Holmes, Gordon M.** On the comparative anatomy of the nervus acusticus. Dublin, Trans. R. Irish Acad., 32, 1903, (101-144).

**Lang, Arnold.** Fünfundneunzig Thesen über den phylogenetischen Ursprung und die morphologische Bedeutung der Centraltheile des Blutge-

fäßsystems der Tiere. Zürich, Vierteljahrsschr. Natf. Ges., 47, 1902, (393-421).

**Nusbaum, Józef.** Principes d'anatomie comparée. II Volume: L'anatomie comparée des Vertébrés. (Polonais) Warszawa (Kasa Mianowskiego, Wende i Sp.), 1903, (552). 24.5 cm, 4 rub.

**Tims, H. W. M.** The evolution of teeth in the Mammalia. J. Anat. Physiol., London, 17, 1903, (131-149).

#### TEGUMENT AND ITS ORGANS.

**Biedermann, W[ilhelm].** Geformte Sekrete. Zs. allg. Physiol., Jena, 2, 1903, (395-481, mit 4 Taf.).

**Dekhuysen, M. C.** Ueber das Epithel der Oberfläche des Magens. Nach Untersuchungen von M. C. Dekhuysen und P. Vermaat. Anat. Anz., Jena, 23, ErgH., 1903, (145-152).

**Linden, Gräfin M[aria] von.** Die Zeichnung der Tiere. Vortrag . . . Natw. Wochenschr., Jena, 18, 1903, (205-210, 220-224).

**Prentiss, C. W.** Ueber die Fibrillengitter in dem Neuropil von *Hirudo* und *Astacus* und ihre Beziehung zu den sogenannten Neuronen. Arch. mikr. Anat., Bonn, 62, 1903, (592-606, mit 1 Taf.).

**Reichard, Adolf.** Ueber Cuticular- und Gerüst-Substanzen bei wirbellosen Tieren. Heidelberg (G. Koester), 1903, (46). 22 cm. 1 M.

**Saint-Hilaire, K. K.** Untersuchungen über den Stoffwechsel in der Zelle und in den Geweben. (Russ.) St. Petersburg, Trav. Soc. nat., XXXIII, 2, 1903, (139-310, 356-363); deutsches Rés., (311-355, 364-370, Taf. I-V).

**Schaffer, Josef.** Ueber das vesikulöse Stützgewebe. Vorläuf. Mitteilung. Anat. Anz., Jena, 23, 1903, (464-479).

**Schuberg, August.** Untersuchungen über Zellverbindungen. [Tl. I.] Zs. wiss. Zool., Leipzig, 74, 1903, (155-325, mit 7 Taf.).

#### NERVOUS SYSTEM.

Neurobiologische Arbeiten. Hrsg. v. Oskar Vogt. Serie 2: Weitere Beiträge zur Hirnanatomie. Bd 1, Lfg 1: M.

Borchert, *Torpedo*. Jena, Denkschr. med. Ges., 10, 1903, (IV + 59, mit 10 Taf.).

Beard, J[ames] Carter. Are the senses of the lower animals superior to ours? Sci. Amer., New York, N.Y., 88, 1903, (26).

Bernard, H. M. Studies in the retina. Part VI. The continuity of the nerves through the vertebrate retina. Q. J. Microsc. Sci., London, 47, 1903, (303-362, pls. XXVII-XXIX).

Cameron, J. On the origin of the pineal body as an amesial structure, deduced from the study of its development in Amphibia. Edinburgh, Proc. Scot. Microsc. Soc., 3, 1903, (340-349, pl. XXIII).

Homologies of the sense organs. J. Anat. Physiol., London, 17, 1903, (XLI- XLIII).

Domaggio. Sugli apparati fibrillari endocellulari di conduzione nei centri nervosi dei vertebrati superiori. Riv. sper. freniatr., Reggio-Emilia, 28, 1902, (108-109).

Donaldson, Henry H. On a formula for determining the weight of the central nervous system of the frog from the weight and length of its entire body [with bibliography]. Chicago, Ill., Dec. Pub. Univ. Chic., (Ser. 1), 10, 1903, ([15]-30, with text-fig.).

Edinger, L. Brain anatomy and psychology. [Transl.] The Monist, Chicago, Ill., 11, 1901, ([339]-360).

Holmes, Gordon. On morphological changes in exhausted ganglion cells. Zs. allg. Physiol., Jena, 2, 1903, (502-515).

Kronthal, P[aul]. Zum Kapitel: Leukocyten und Nervenzelle. Anat. Anz., Jena, 22, 1903, (448-454).

Muhse, Effa Funk. The eyes of the blind vertebrates of North America. 6. The eyes of *Typhlops lumbricalis* (Linnaeus), a blind snake from Cuba. Wood's Holl, Mass., Mar. Biol., Lab. Bull., 5, 1903, (261-270, with text fig.).

Nissl, Franz. Die Neuronenlehre und ihre Anhänger. Ein Beitrag zur Lösung des Problems der Beziehungen zwischen Nervenzelle, Faser und Grau. Jena (G. Fischer), 1903, (VI + 478, mit 2 Taf.). 26 cm. 12 M.

Pettit, Auguste. Sur les enveloppes des centres nerveux. Bul. Muséum, Paris, 1903, (151-153, av. fig.).

Prentiss, C. W. Ueber die Fibrillengitter in dem Neuropil von *Hirudo* und *Astacus* und ihre Beziehung zu den sogenannten Neuronen. Arch. mikr. Anat., Bonn, 62, 1903, (592-606, mit 1 Taf.).

Roncoroni, L. Le fibre amieliniche pericellulari e peridendritiche nella corteccia cerebrale. Riforma med., Roma, 18, 1902, (543-546, 544-558).

Slonaker, James Rollin. The eyes of the common mole, *Scalops aquaticus machrinus*. [With bibliography]. J. Comp. Neur., Granville, Ohio, 12, 1902, ([335]-366, with 3 pls.).

Spittka, Edward Anthony. Brain-weights of animals with special reference to the weight of the brain in the Macaque monkey. J. Comp. Neur., Granville, Ohio, 13, 1903, ([9]-17).

#### MYOLOGY.

Anthony, R. Du rôle de la compression dans la localisation des tendons. Paris, C.-R. Acad. sci., 137, 1903, (622-624).

Huntington, George S[umner]. Present problems of myological research and the significance and classification of muscular variations. Amer. J. Anat., Baltimore, Md., 2, 1903, (157-175, with 7 pls.).

McMurrich, J[ames] Playfair. The phylogeny of the forearm flexors [with bibliography]. Amer. J. Anat., Baltimore, Md., 2, 1903, (177-209).

The phylogeny of the palmar musculature [with bibliography]. Amer. J. Anat., Baltimore, Md., 2, 1903, (463-500).

Münch, Karl. Die sogenannte Querstreifung der Muskelfaser der optische Ausdruck ihrer spiraligen anisotropen Durchwindung. Arch. mikr. Anat., Bonn, 62, 1903, (55-107, mit 1 Taf.).

#### SKELETON INCLUDING OSTEOLOGY AND DENTITION.

Huxley, Thomas H[enry]. A manual of the anatomy of invertebrate animals. New York (D. Appleton & Co.), 1901, (596, with illustr.). 20 cm.

## ALIMENTARY SYSTEM.

**Laploque, Louis.** Sur la relation entre la longueur de l'intestin et la grandeur de l'animal. Paris, C.-R. soc. biol., **55**, 1903, (29-30).

**Maurel, E.** Rapport du poids du foie au poids total de l'animal. Paris, C.-R. soc. biol., **55**, 1903, (43-45).

——— Rapport du poids du foie à la surface totale de l'animal. Paris, C.-R. soc. biol., **55**, 1903, (45-48).

——— Rapport du poids du foie au poids total et à la surface totale de l'animal. Dédutions théoriques et pratiques. Paris, C.-R. soc. biol., **55**, 1903, (196-198).

**Ross, Mary J.** The origin and development of the gastric glands of *Desmognathus*, *Amblystoma* and pig. [With bibliography]. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **4**, 1903, (66-95); [reprint], [Thesis] . . . Ph. D., Cornell, 1902. 25.5 cm.

**Saint-Hilaire, K. K.** Untersuchungen über den Stoffwechsel in der Zelle und in den Geweben. (Russ.) St. Petersburg, Trav. Soc. nat., **XXXIII**, 2, 1903, (139-310, 356-363); deutsches Rés., (311-355, 364-370, Taf. I-V.).

**Tims, H. W. M.** The evolution of teeth in the Mammalia. J. Anat. Physiol., London, **17**, 1903, (131-149).

## SKELETAL STRUCTURE OF INVERTEBRATES.

**Smith, Geoffroy.** *Actinosphaerium eichhorni*. A biometrical study in the mass relations of nucleus and cytoplasm. Biometrika, Cambridge, **2**, 1903, (241-254).

## BLOOD, LYMPH.

**Kronthal, Paul.** Zum Kapitel: Leukocyt und Nervenzelle. Anat. Anz., Jena, **22**, 1903, (448-454).

**Lang, Arnold.** Beiträge zu einer Trophocöltheorie. Betrachtungen und Suggestionen über die phylogenetische Ableitung der Blut- und Lymphbehälter, insbesondere der Articulaten. Mit einem einleitenden Abschnitt über die Abstammung der Anneliden. Jenaische Zs. Natw., **38**, 1903, (1-373, mit 6 Taf.).

## EXCRETORY ORGANS.

**Gaskell, W. H.** The origin of Vertebrates deduced from the study of *Ammocoetes*. Part XI. The origin of the Vertebrate body cavity and excretory organs; the meaning of the somites of the trunk and of the ductless glands. J. Anat. Physiol., London, **17**, 1903, (168-219).

## REPRODUCTIVE ORGANS.

**Farmer, J. B., Moore, J. E. S. and Walker, C. E.** On the resemblances exhibited between the cells of malignant growths in man and those of normal reproductive tissues. London, Proc. R. Soc., **72**, 1903, (499-504).

## SPECIAL GLANDS.

**Braus, Hermann.** Sekretkanälchen und Deckleisten. Anat. Anz., Jena, **22**, 1903, (368-373).

**Gaskell, W. H.** The origin of Vertebrates deduced from the study of *Ammocoetes*. Part XI. The origin of the Vertebrate body cavity and excretory organs, the meaning of the somites of the trunk and of the ductless glands. J. Anat. Physiol., London, **17**, 1903, (168-219).

**Holmgren, Emil.** Weiteres über die Trophospongien verschiedener Drüsenzellen. Anat. Anz., Jena, **23**, 1903, (289-297).

**Saint-Hilaire, K. K.** Untersuchungen über den Stoffwechsel in der Zelle und in den Geweben. (Russ.) St. Petersburg, Trav. Soc. nat., **XXXIII**, 2, 1903, (139-310, 356-363); deutsches Rés., (311-355, 364-370, Taf. I-V.).

## RUDIMENTARY AND VESTIGIAL ORGANS.

**Brues, Charles T.** The structure and significance of vestigial wings among insects. [with bibliography.] Wood's Holl, Mass., Mar. Biol. Lab. Bull., **4**, 1903, (179-190).

**Slonaker, James Rollin.** The eye of the common mole, *Scalops aquaticus machrinus*. [With bibliography.] J. Comp. Neur., Granville, Ohio, **12**, 1902, ([335]-366, with 3 pls.).

# 0211 PHYSIOLOGY [OF THE ANIMAL KINGDOM OR OF MORE THAN ONE OF ITS BRANCHES].

## GENERAL.

Some experiments with a chrysalis. Philadelphia, Pa., Ent. News Acad. Nat. Sci., Amer. Ent. Soc., **14**, 1903, (286-287). [0215 4411].

Cook, O[rator] F[uller]. Stages of vital motion. Pop. Sci. Mon., New York, N. Y., **63**, 1903, (14-24).

Devaux, H. Sur une réaction nouvelle et générale des tissus vivants. Essai de détermination directe des dimensions de la micelle albuminoïde. Bordeaux, Actes soc. linn., **58**, 1903, (Proc.-verb., CCLIX-CCLXIV).

Hartwig, O. Eléments d'anatomie et de physiologie générales. La Cellule. Paris (Naud), 1903, (xiv + 428, av. fig. 28 cm.

Thilo, O[tto]. Die Bedeutung der technischen Wissenschaften für den Naturforscher. Physik. Zs., Leipzig, **4**, 1903, (759-763).

Tichonovic, V. V. A l'étude de l'excrétion de l'acide phosphorique par l'organisme animal. (Russ.) Charikov, Trd. Obšč. ispyt. prir., **XXXVIII**, 1, 1903, (67-84).

Tur, I. Ja. Kasuistik und Theorie der mehrkeimigen Missbildungen. Arb. a. d. zoot. Labor. d. Univ. Warschau. No. XXIX. (Russ.) Warszawa, Izv. Univ., **1903**, (18, mit 9 Fig. und 1 Taf.).

## PARTHENOGENESIS.

Delage, Yves. Elevage des larves parthénogénétiques d'Astéries dues à l'action de l'acide carbonique. Paris, C.-R. Acad. sci., **137**, 1903, (449-451).

——— La parthénogénèse par l'acide carbonique, obtenue chez les œufs après l'émission des globules polaires. Paris, C.-R. Acad. sci., **137**, 1903, (473-475).

Greeley, Arthur W. On the effect of variations in the temperature upon the process of artificial parthenogenesis. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **4**, 1903, (129-136).

Hunter, S[amuel] J[ohn]. On the conditions governing the production of artificial parthenogenesis in *Arbacia*. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **5**, 1903, (143-151).

Loeb, Jacques. Artificial parthenogenesis in molluscs. Berkeley, Univ. Cal. Pub., Physiol., **1**, 1903, (7-9). Separate. 26.5 cm.

Messing, S. Ueber Entzündung bei den niederen wirbellosen Tieren. Centralbl. Path., Jena, **14**, 1903, (915-920).

Somov, M. P. Die Lehre von der Parthenogenesis in Vergangenheit und Gegenwart. (Russ.) Moskva, Trd. Kruž. izsl. russ. prir., **1**, 1903, (111-126).

Tichomirov, A. Befruchtung und Parthenogenese. (Russ.) Jestestv. i Geogr., Moskva, **7**, No. 5, 1902, (1-32, mit 9 Fig.).

Treadwell, Aaron L[ouis]. Notes on the nature of "artificial parthenogenesis" in the egg of *Podake obscura*. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **3**, 1902, (235-240).

Wedekind, W. Eine rudimentäre Function. Zool. Anz., Leipzig **26**, 1903, (203-204).

Wheeler, William Morton. The origin of female and worker ants from the eggs of parthenogenic workers. Science, New York, N. Y., (N. Ser.), **18**, 1903, (830-833).

## PRODUCTION OF SEX.

Castle, W. E. The heredity of sex. (Cambridge, Mass., Cont. Mus. Comp. Zool. Harvard Coll., No. **137**.) Cambridge, Mass., Bull. Mus. Comp. Zool. Harvard Coll., **40**, 1903, (189-218). Separate. 24.6 cm.

Lenhossék, M[ihály] von. Das Problem der geschlechtsbestimmenden Ursachen. Jena (G. Fischer), 1903, (III + 99). 24 cm. 2 M.

Morgan, T[homas] H[unt]. Recent theories in regard to the determination of sex. Pop. Sci. Mon., New York, N. Y., **64**, 1903, (97-116).

# FUNCTION OF SPECIAL ORGANS AND STRUCTURES.

**Bancroft, Frank W. and Esterly, C. O.** A case of physiological polarization in the Ascidian heart. Berkeley, Univ. Cal. Pub. Zool., **1**, 1903, (105-114). Separate. 27 cm.

**Bensley, R. R.** The cardiac glands of mammals [with bibliography]. Amer. J. Anat., Baltimore, Md., **2**, 1902, (105-156).

**Bonnier, Pierre.** [Problème de l'orientation à distance.] Bul. inst. psych. internat., Paris, **2**, 1902, (214-216).

**Cameron, J.** Homologies of the sense organs. J. Anat. Physiol., London, **17**, 1903, (XLII-XLIII).

**Chauveau, A.** "Animal thermostat." Problèmes d'énergétique biologique, soulevés par une Note de Lord Kelvin sur la régulation de la température des animaux à sang chaud. La permanence des processus producteurs de la chaleur de combustion. Paris, C.-R. Acad. sci., **136**, 1903, (792-798).

**Dekhuysen, M. C.** Liquide fixateur isotonique avec l'eau de mer, pour les objets dont on ne veut pas éliminer les formations calcaires. Paris, C.-R. Acad. sci., **137**, 1903, (445-447).

**Ducceschi, Virgilio.** Una legge del movimento animale. Zs. allg. Physiol., Jena, **2**, 1903, (482-501).

**Edinger, L.** Brain anatomy and psychology [Transl.]. The Monist, Chicago, Ill., **11**, 1901, ([339]-360).

**Fischer, Otto.** Physiologische Mechanik. [Vortrag.] Physik. Zs., Leipzig, **4**, 1903, (782-793); Arch. Math., Leipzig, (3. Reihe), **7**, 1903, (110-123); Natw. Rdsch., Braunschweig, **18**, 1903, (585-588, 597-601).

**Kelvin, Lord.** Animal thermostat. Nature, London, **67**, 1903, (401, 402).

**Lang, Arnold.** Ob die Wassertiere hören? Winterthur, Mitt. Natw. Ges., **4**, 1902, (3-55, 17 figs.).

**Loeb, Jacques.** Zusammenstellung der Ergebnisse einiger Arbeiten über die Dynamik des tierischen Wachstums. Arch. Entw. Mech., Leipzig, **15**, 1903, (669-678).

**Meyer, Edouard.** Appareils régulateurs de la circulation du sang chez l'animal nouveau-né. Paris, C.-R. Acad. sci., **136**, 1903, (711-718).

**Pütter, A.** Die Flimmerbewegung. Ergebn. Physiol., Wiesbaden, **2**, Abt. 2, 1903, (1-102).

**Saint-Hilaire, K. K.** Untersuchungen über den Stoffwechsel in der Zelle und in den Geweben. (Russ.) St. Petersburg, Trav. Soc. nat. **XXXIII**, 2, 1903, (130-310, 356-363); deutsches Res., (311-355, 364-370, Taf. I-V).

**Thomson, J. A.** [Review of "Die organischen Regulationen. Vorbereitungen zu einer Theorie des Lebens," by Hans Driesch, Leipzig, 1901, (XV + 228).] Nature, London, **67**, 1903, (50).

## ASSIMILATION.

**Yung, Emil.** Effets anatomiques de l' inanition. Arch. Sci. Phys., Genève, (sér. 4), **15**, 1903, (456-457).

## RESPIRATION.

**Bohn, Georges.** Conditions normales de la respiration pour les animaux marins. Paris, C.-R. soc. biol., **55**, 1903, (290-291).

**Du Bois-Reymond, R[ené].** Mechanik der Atmung. Ergebn. Physiol., Wiesbaden, **1**, Abt. 2, 1902, (377-402).

## ENVIRONMENTAL EFFECTS.

**Boistesselin, Henri du.** La production de l'électricité chez les êtres vivants et l'électrochimie. Electrochimie, Paris, **9**, 1903, (74-76).

**Brues, Charles T.** The structure and significance of vestigial wings among insects [with bibliography]. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **4**, 1903, (179-190).

**Elrod, Morton John.** *Daphnia* pond. A study in environment. Missoula, Bull. Univ. Mont., No. **17**, Biol. Ser. No. **5**, 1903, (230-233, with pl.).

**Hamilton, G. E. H. Barrett.** Abstract of a physiological hypothesis to explain the winter whitening of mammals and birds inhabiting snowy countries, and

the more striking points in the distribution of white in Vertebrates generally. Dublin, Proc. R. Irish Acad., **24**, 1903, (303-314).

**Keable, F. and Gamble, F. W.** The colour-physiology of the higher Crustaceans. London, Phil. Trans. R. Soc., **1903**, 1903, (295-388).

**Loeb, Jacques.** On the relative toxicity of distilled water, sugar solutions, and solutions of the various constituents of the sea-water for marine animals. [Translated from Pflüger's Archiv, **97**, 1903, (394).] Berkeley Univ. Cal., Pub. Physiol., **1**, 1903, (55-69).

**Oestergren, Hjalmar.** Aether als Betäubungsmittel für Wasserthiere. Zs. wiss. Mikrosk., Leipzig, **19**, 1903, (300-308).

**Osborn, Hebert.** Highways and byways of animal life. Pop. Sci. Mon., New York, N.Y., **63**, 1903, (499-515).

**Ostwald, Wolfgang.** Theoretische Planktonstudien. Zool. Jahrb., Jena, Abt. f. Syst., **18**, 1903, (1-62, mit 4 Taf.).

Ueber eine neue theoretische Betrachtungsweise in der Planktologie, insbesondere über die Bedeutung des Begriffs der „inneren Reibung des Wassers“ für dieselbe. Plön, ForschBer. biol. Stat., **10**, 1903, (1-49).

**Shaler, N[athaniel] S[outhgate].** The relations of animals and plants. Harper's Magazine, New York and London, **104**, 1902, (721-724).

**Tichonovič, V. V.** A l'étude de l'excrétion de l'acide phosphorique par l'organisme animal. (Russ.) Charikov, Trd. Obšč. ispyt. priro., **XXXVIII**, 1, 1903, (67-84).

#### REGENERATION.

**Barfurth, Dietrich.** Ist die Regeneration vom Nervensystem abhängig? Anat. Anz., Jena, **19**, ErgH., 1901, (197-201).

**Child, C. M.** Form-regulation in Coelentera and Turbellaria. Washington, D.C., Smithsonian Inst. Misc. Collect, Q. Issue, **45**, 1903, (134-143, with pl.). Separate. 24.5 cm.

Form regulation in *Cerianthus*. Wood's. Holl., Mass., Mar. Biol.

Lab. Bull., **5**, 1903, (239-260, 304-319, with text-fig.); **6**, 1903, (1-11, with text-fig.).

**Delage, Yves.** Sur la non-régénération des sphérides chez les oursins. Paris, C.-R. Acad. sci., **137**, 1903, (681-682).

**Flanck, R. H.** Die „Selbstregulationen“ im lebenden Organismus. Umschau, Frankfurt a. M., **7**, 1903, (846-852).

**Galeotti, G.** Sugli innesti fra tessuti animali. Rivista dei lavori italiani del 1896. Mon. zool. ital., Firenze, **13**, 1902, (73-78).

**Hargitt, George Thomas.** Regeneration in *Hydromedusae*. Lincoln, Stud. Zool. Lab., Univ. Neb., No. **57**, 1903, (32, with pl.). 23 cm.

**Holmgren, Emil.** Regeneration. (Swedish) Hygien, Stockholm, (N.F.), **1**, 2, 1901, (321-337).

**Mariani, F. e Figari, F.** Nota preventiva sul trapianto degli organi. Genova, Boll. R. Acc. med., **17**, 1902, (131-134).

**Monks, Sarah P.** Regeneration of the body of a starfish. [*Phataria (Linckia) fascialis*]. [Abstract.] Philadelphia, Pa., Proc. Acad. Nat. Sci., **55**, 1903, (351); London, J. R. Microsc. Soc., **1903**, (616).

**Morgan, T[homas] H[unt].** Regeneration of the leg of *Amphiuma means*. Wood's Holl., Mass., Mar. Biol. Lab. Bull., **5**, 1903, (293-296, with text fig.).

Hypothesis of formative stuffs. New York, N.Y., Bull. Torrey Bot. Cl., **30**, 1903, (206-213).

**Ottolenghi, D.** Ricerche sperimentali sul trapianto della glandula salivare sottomascellare. Torino, Giorn. Acc. med., **65**, 1902, (178-188, con fig.).

**Pazzolini, P.** Sugli innesti eutanei alla Krause. Contributo allo studio dell'autonomia vitale dei tessuti. Archivio sc. med., Torino, **26**, 1902, (319-333, con tav.).

**Pradibram, H.** Regeneration. Ergebn. Physiol., Wiesbaden, **1**, Abt. 2, 1902, (43-119).

**Rabes.** Regeneration im Tierreiche. Nebst Nachtrag. Aus d. Heimat, Stuttgart, **15**, 1902, (85-89); **16**, 1903, (68),

**Thomson, J. A.** Regeneration of lost parts in animals. *Edinburgh Trans. Scot. Nat. Hist. Soc.*, **2**, 1903, (34-49).

**Traina, R.** Sugli innesti di tessuti embrionali nell'ovaio e sulla produzione delle cisti ovariche. *Archivio sc. med.*, Torino, **26**, 1902, (13-52, con 4 tav.).

**Wilson, Edmund B.** Notes on the reversal of asymmetry in the regeneration of the chelae in *Alpheus heterochelis*. *Wood's Holl, Mass., Mar. Biol. Lab. Bull.*, **4**, 1903, (197-210).

Notes on merogony and regeneration in *Renilla*. *Wood's Holl, Mass., Mar. Biol. Lab. Bull.*, **4**, 1903, (215-226).

**Zeleny, Charles.** A study of the rate of regeneration of the arms in the brittle-star *Ophioglypha lacertosa*. *Wood's Holl, Mass., Mar. Biol. Lab. Bull.*, **6**, 1903, (12-17, with diag.).

#### ACTION OF DRUGS AND TOXINES.

**Nicloux, Maurice.** Dosage de petites quantités de glycérine. Existence de la glycérine dans le sang animal. *Bul. Muséum, Paris*, **1903**, (154-156).

**Viguer, C.** Action de l'acide carbonique sur les œufs d'Echinodermes. *Paris, C.-R. Acad. sci.*, **136**, 1903, (1687-1690).

#### CHEMICAL PHYSIOLOGY.

**Bertrand, Gabriel.** Sur l'existence de l'arsenic dans l'œuf de la poule. *Paris, C.-R. Acad. sci.*, **136**, 1903, (1083-1085).

Sur la recherche et la preuve de l'existence de l'arsenic chez les animaux. *Ann. chim. phys.*, Paris, (sér. 7), **29**, 1903, (242-276).

Sur l'existence de l'arsenic dans la série animale. *Bul. sci. pharm.*, Paris, **5**, 1902, (329-332).

**Fürth, Otto von.** Vergleichende chemische Physiologie der niederen Tiere. *Jena (G. Fischer)*, 1903, (XIV + 670). 26 cm. 16 M.

**Gautrelet, Jean.** De la puissance de l'acide lactique dans les muscles des Invertébrés et des Vertébrés inférieurs. *Paris, C.-R. Acad. sci.*, **137**, 1903, (417-418).

**Meigen, Wilhelm.** Beiträge zur Kenntnis des kohlensauren Kalkes. *Freiburg i. B., Ber. natf. Ges.*, **13**, 1903, (40-94).

**Nentakij, M. u. Zaleskij, T.** Ueber die Bestimmung des Ammoniaks in den thierischen Säften und Geweben. (Russ.) *Arch. sc. biol.*, St. Peterburg, **9**, 1902, (316-330).

**Ostwald, Wolfgang.** Ueber die physikalisch-chemischen Bedingungen des Schwebens im Wasser, mit besonderer Rücksicht auf das Plankton, und über eine neue theoretische Betrachtungsweise in der Planktologie. *Verh. Ges. D. Natf.*, Leipzig, **74**, (1902), II, 1, 1903, (155-157).

**Sellier.** Sur la lipase du sang chez quelques groupes de poissons et d'animaux invertébrés. *Bordeaux, Actes soc. linn.*, (sér. 6), **7**, 1902, (Proc.-verb. XLIX-I).

**Tichonovič, V. V.** A l'étude de l'excrétion de l'acide phosphorique par l'organisme animal. (Russ.) *Charikov, Trd. Obsč. ispyt. prir.*, XXXVIII, 1, (1903), (67-84).

#### EXPERIMENTAL PHYSIOLOGY.

**Delage, Yves.** La parthénogenèse par l'acide carbonique, obtenue chez les œufs après l'émission des globules polaires. *Paris, C.-R. Acad. sci.*, **137**, 1903, (473-476); [abstract], *London, J. R. Microsc. Soc.*, **1904**, (187).

**Greeley, Arthur W[white].** The artificial production of spores in *Monas* by a reduction of temperature. *Chicago, Ill., Dec. Pub. Univ. Chic.*, (Ser. 1), **10**, 1903, ([71]-77, with text fig.).

**Lapicque, L. et Lapicque, Mme.** Sur la loi d'excitation électrique chez quelques invertébrés. *Paris, C.-R. Acad. sci.*, **136**, 1903, (1147-1148).

**Manca, G.** Recherches chimiques sur les animaux à sang froid soumis à l'inanition. *Arch. ital. biol.*, Paris, **37**, 1902 (161-176).

**Rabes, O.** Verwachsungsversuche mit Thieren. *Prometheus, Berlin*, **14**, 1903, (737-740, 762-765).

# 0215 DEVELOPMENT [GENERAL WORKS ON MORE THAN ONE OF THE BRANCHES].

## GENERAL.

Studien über Entwicklungsgeschichte der Tiere, hrsg. v. Emil Selenka, H. 10: Menschenaffen (Anthropomorphae), Studien über Entwicklung und Schädelbau, Lfg 5: Selenka, Zur Keimesgesch. d. Primaten. Wiesbaden (C. W. Kreidel), 1903, (IV + 14 + II, 329-373, mit 1 Portr. u. 1 Taf.). 33 cm. In Mappe 18,65 M.

Bastian, H. Charlton. On the origin of Bacteria and their allies by Heterogenesis. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (381-405, pls. XXV-XXVI).

Fischel, Alfred. Entwicklung und Organ-Differenzierung. Arch. Entw.-Mech., Leipzig, 15, 1903, (679-750).

Garbowaki, Tad[däus]. Morphogenetische Studien. Als Beitrag zur Methodologie zoologischer Forschung. Jena (G. Fischer), 1903, (VIII + 189, mit 6 Taf.). 36 cm. 28 M.

Hickson, S. J. The mechanics of development. Presidential address. Manchester, Trans. Microsc. Soc., 1902, 1903, (28-37).

Hls, Wilhelm. Die Zeit in der Entwicklung der Organismen. Basel, Verh. Natf. Ges., 16, 1903, (210-228).

Korschelt, E[ugen] und Heider, K[arl]. Lehrbuch der vergleichenden Entwicklungsgeschichte der wirbellosen Thiere. Allgemeiner Theil. Lfg 2. 1. u. 2. Aufl. Jena (G. Fischer), 1903, (III, 539-750). 26 cm.

Wedekind, W. Eine rudimentäre Function. Zool. Anz., Leipzig, 26, 1903, (203-204).

## OÖGENESIS AND OVUM.

Farmer, J. B. and Moore, J. E. S. New investigations into the reduction phenomena of animals and plants. Preliminary communication. London, Proc. R. Soc., 72, 1903, (104-108).

Henschen, Folke. Zur Struktur der Eizelle gewisser Crustaceen und Gastropoden. Anat. Anz., Jena, 24, 1903, (15-29).

(x 2-9053)

Lécaillon, A. Sur le développement de l'ovaire de *Polyzenus lagurus* de Geer. Paris, C.-R. Acad. sci., 136, 1903, (1691-1693).

Van der Stricht, O. Les "pseudo-chromosomes" dans l'ovocyte de chauve-souris. Communication préliminaire. Nancy (Berger-Levrault et Cie.), 1902, (7). 8vo.

Wallace, W. Observations on ovarian ova and follicles in certain Teleostean and Elasmobranch fishes. Q. J. Microsc. Sci., London, 47, 1903, (161-213, pls. XV-XVII).

## SPERMATOGENESIS.

Blackman, Maulsby W. The spermatogenesis of the Myriapods. II. On the chromatin in the spermatocytes of *Scelopendra heros*. [with bibliography]. Wood's Holl, Mass., Mar. Biol. Lab. Bull., 5, 1903, (187-217, with text fig.).

Dewitz, J. Was veranlasst die Spermatozoen, in das Ei zu dringen? Arch. Anat. Physiol., Leipzig, Physiol. Abt., 1903, (100-104).

Farmer, J. B. and Moore, J. E. S. New investigations into the reduction phenomena of animals and plants. Preliminary communication. London, Proc. R. Soc., 73, 1903, (104-108).

Fischer, Martin H. How long does (*Arbacia*) sperm live in sea-water? Amer. J. Physiol., Boston, Mass., 8, 1903, (430-434).

Guyer, M. F. Hybridism and the germ-cell. Cincinnati, Ohio, Univ. Cincin. Bull., No. 21, 1902, (20, with pl.). 23.5 cm.

Montgomery, Thomas H[arrison] jun. Further studies on the chromosomes of the Hemiptera Heteroptera. Philadelphia, Pa., Proc. Acad. Nat. Sci., 1901, (261-271, with pl.); [reprint], Philadelphia, Cont. Zool. Lab. Univ. Pa., 1901, 1902, (261-271, with pl.).

——— The spermatogenesis of *Peripatus (Peripatopsis) balfouri* up to the formation of the spermatid, [with bibliography]. [Reprint.] Philadelphia, Cont. Zool. Lab., Univ. Pa., 1901, 1902, (277-368, with pl.).

——— The heterotypic maturation mitosis in Amphibia and its general significance [with bibliography].



Wood's Holl, Mass., Mar. Biol. Lab. Bull., 4, 1903, (259-269).

**Stéphan, P.** L'évolution des corpuscles centraux dans la spermatogenèse de *Chimaera monstrosa*. Paris, C.-R. soc. biol., 55, 1903, (265-267).

**Van der Stricht, O.** Le spermatozoïde dans l'œuf de chauve-souris. Halle (Verlag von Gustav Fischer), 1902, (6). 8vo.

**Variot.** Indépendance de la spermatogenèse de la sécrétion interne des glandes génitales. Paris, Bul. mém. soc. méd. hôpit., 19, 1902, (272-273).

#### FERTILISATION.

**Kathariner, L.** Das Problem der Befruchtung. Natur u. Offenb., Münster, 49, 1903, (513-528).

**Loeb, Jacques.** A method by which the eggs of a sea-urchin (*Strongylocentrotus purpuratus*) can be fertilized with the sperm of a starfish (*Asterias ochracea*). Berkeley, Univ. Cal., Pub. Physiol., 1, 1903, (1-3). Separate. 26.5 cm.

— The fertilization of the egg of the sea-urchin by the sperm of the star-fish. [Address before the Sigma Xi scientific society at Stanford university, October 13, 1903.] Berkeley, Univ. Cal., Pub. Physiol., 1, 1903, (39-53). Separate. 27.3 cm.

**Tichomirov, A.** Befruchtung und Parthenogenese. (Russ.). Jestektiv. i Geogr., Moskva, 7, No. 5, 1902, (1-32, mit 9 Taf.).

#### EMBRYOLOGY, ORGANOGENY, HISTOGENY.

**Cameron, J.** The application of Professor His' method of reconstruction to the study of embryology. Edinburgh, Proc. Scot. Microsc. Soc., 3, 1903, (332-339).

**Conklin, Edwin G[rant].** The individuality of the germ nuclei during the cleavage of the egg of *Crepidula*. [With bibliography.] Wood's Holl, Mass., Mar. Biol. Lab. Bull., 2, 1901, (257-265, with text fig.); [reprint], Philadelphia, Cont. Zool. Lab., Univ. Pa., 1901, 1902, (257-265, with text fig.).

— The cause of inverse symmetry. Anat. Anz., Jena, 23, 1903, (577-588).

**King, Helen Dean.** The formation of the notochord in the Amphibia, [with bibliography]. Wood's Holl, Mass., Mar. Biol. Lab. Bull., 4, 1903, (287-300).

— The effects of heat on the development of the toad's egg [with bibliography]. Wood's Holl, Mass., Mar. Biol. Lab. Bull., 5, 1903, (218-232, with text fig.).

**Lewis, Frederic T.** The gross anatomy of a 12-mm. pig. [Sus] [with bibliography]. Amer. J. Anat., Baltimore, Md., 2, 1903, (211-228, with 4 pls.).

**Lillie, Ralph S.** Fusion of blastomeres and nuclear division without cell-division in solutions of non-electrolytes. Wood's Holl, Mass., Mar. Biol. Lab. Bull., 4, 1903, (164-178).

**Marshall, F. H. A.** The oestrous cycle and the formation of the corpus luteum in the sheep. London, Phil. Trans. R. Soc., 1903, (47-97, pls. VII-X).

**Mitrofanov, P. J.** Ueber das primäre Blatt in der Entwicklung der Reptilien und Vögel (Sauropsida). Arb. a. d. zootom. Labor. d. Univ. Warschau No. XXVI. (Russ.) Warszawa, Izv. Univ., 1903, (27 + III, mit 16 fig.).

**Morgan, Thomas H[unt].** Recent theories in regard to the determination of sex. Pop. Sci. Mon., New York, N.Y., 64, 1903, (97-116).

**Peebles, Florence.** A preliminary note on the position of the primitive streak, and its relation to the embryo of the chick. [Gallus domesticus.] Wood's Holl, Mass., Mar. Biol. Lab. Bull., 4, 1903, (211-214).

**Perrier, Edmond et Gravier, Charles.** La tachygenèse ou accélération embryogénique; son importance dans les modifications des phénomènes embryogéniques, son rôle dans la transformation des organismes. Ann. sci. nat. (zool.), Paris, (sér. 8), 16, 1902, (133-374); [résumé], Paris, C.-R. Acad. sci., 136, 1903, (798-801).

**Ross, Mary J.** The origin and development of the gastric glands of *Desmognathus*, *Amblystoma* and pig. [With bibliography.] Wood's Holl, Mass., Mar. Biol. Lab. Bull., 4, 1903, (66-95); [reprint], [Thesis] . . . Ph.D. . . . Cornell 1902. 25.5 cm.

**Studnicka, F. K.** Schematische Darstellungen zur Entwicklungsgeschichte einiger Gewebe. *Anat. Anz., Jena*, **22**, 1903, (537-556, mit 2 Taf.).

**Torrey, John Cutter.** The early embryology of *Thalassema mellita* (Conn.) [Ph.D., Columbia University.] New York, N.Y., *Ann. Acad. Sci.*, **14**, 1903, (165-246, with pl.).

**Tur, I. Ja.** Zur Kasuistik und Theorie der mehrkeimigen Missbildungen. *Arb. a. d. zoot. Labor. d. Univ. Warschau No. XXIX.* (Russ.) *Varšava, Izv. Univ.*, **1903**, (18, mit 9 Fig. u. 1 Taf.).

**Weber, A.** Notes de mécanisme embryonnaire. *J. anat. physiol., Paris*, **39**, 1903, (76-34, av. 16 fig. et 1 pl.).

**Wilson, Edmund B.** Notes on inero-gony and regeneration in *Renilla*. Wood's Holl, Mass., *Mar. Biol. Lab. Bull.*, **4**, 1903, (215-226).

**Wintrebert, P.** Influence du système nerveux sur l'ontogenèse des membres. *Paris, C.-R. Acad. sci.*, **137**, 1903, (131-133).

**Zur Strassen, Otto.** Ueber die Mechanik der Epithelbildung. *Verh. D. zool. Ges., Leipzig*, **13**, 1903, (91-112).

#### EXPERIMENTAL EMBRYOLOGY.

Some experiments with a chrysalis. Philadelphia, Pa., *Ent. News Acad. Nat. Sci.*, **14**, 1903, (286-287).

**Bohn, Georges.** Influence des rayons du radium sur les animaux en voie de croissance. *Paris, C.-R. Acad. sci.*, **136**, 1903, (1012-1013); [abstract], *London, J. R. Microsc. Soc.*, **1903**, (483).

**Delage, Yves.** Elevage des larves parthénogénétiques d'astéries dues à l'action de l'acide carbonique. *Paris, C.-R. Acad. sci.*, **137**, 1903, (449-451).

La parthénogenèse par l'acide carbonique, obtenue chez les œufs après l'émission des globules polaires. *Paris, C.-R. Acad. sci.*, **137**, 1903, (473-475); [abstract], *London, J. R. Microsc. Soc.*, **1904**, (187).

**Gorham, Frederic P[ole] and Tower, R. W.** Does potassium cyanide prolong the life of the unfertilized egg of the sea urchin? *Amer. J. Physiol., Boston, Mass.*, **8**, 1903, (175-182).

(N 2-9053)

**Greeley, Arthur W.** On the effect of variations in the temperature upon the process of artificial parthenogenesis. Wood's Holl, Mass., *Mar. Biol. Lab. Bull.*, **4**, 1903, (129-136).

**Hunter, Samuel J[ohn].** On the conditions governing the production of artificial parthenogenesis in *Arbacia*. Wood's Holl, Mass., *Mar. Biol. Lab. Bull.*, **5**, 1903, (143-151).

**Janssens, F. A.** Production artificielle de larves géantes chez un Echinide. *Paris, C.-R. Acad. sci.*, **137**, 1903, (274-276).

**Loeb, Jacques.** Artificial parthenogenesis in molluscs. Berkeley, Univ. Cal. Pub. Physiol., **1**, 1903, (7-9). Separate. 26.5 cm.

**Maas, Otto.** Einführung in die experimentelle Entwicklungsgeschichte (Entwicklungsmechanik). Wiesbaden (J. F. Bergmann), 1903, (XVI + 203). 26 cm. 7 M.

**Treadwell, Aaron Louis.** Notes on the nature of "artificial parthenogenesis" in the egg of *Podake obscura*. Wood's Holl, Mass., *Mar. Biol. Lab. Bull.*, **3**, 1902, (235-240).

**Vignier, C.** Action de l'acide carbonique sur les œufs d'échinodermes. *Paris, C.-R. Acad. sci.*, **136**, 1903, (1687-1690).

#### POSTEMBRYONIC ONTOGENY.

**Studnicka, F. K.** Schematische Darstellungen zur Entwicklungsgeschichte einiger Gewebe. *Anat. Anz., Jena*, **22**, 1903, (537-556, mit 2 Taf.).

#### METAMORPHOSIS.

**Glard, Alfred.** Les idées de Lamarck sur la métamorphose. *Paris, C.-R. soc. biol.*, **55**, 1903, (8-9).

**Pérez, C.** Contributions à l'étude des métamorphoses. *Bul. sci. France-Belgique, Paris*, **37**, 1903, (195-427, av. fig. et 3 pls.). Thèse fac. sci. Lille, 1902, (240, av. 3 pls.). 29 cm.

#### CHANGES DURING LIFE.

**Loeb, Jacques.** Zusammenstellung der Ergebnisse einiger Arbeiten über die Dynamik des tierischen Wachstums. *Arch. Entw.Mech., Leipzig*, **15**, 1903, (669-678).

## 0219 ETHOLOGY.

## GENERAL.

**Bach, M.** Studien und Lese Früchte aus dem Buche der Natur. Für jeden Gebildeten, zunächst für die reifere Jugend und ihre Lehrer. Gänzl. umgearb. u. bedeutend verm. v. Ludwig Borgas. Bd 1. 10. Aufl. Köln (J. P. Bachem), 1903, (343). 22 cm. 3,50 M.

**Bougon.** Les animaux et l'homme. Naturaliste, Paris, (sér. 2), 25, 1903, (128-129).

**Burroughs, John.** Real and sham natural history. The Atlantic Monthly, Boston and New York, 91, 1903, (298-309).

**Darwin, Francis.** A Naturalist's Calendar kept at Swaffham Bulbeck, Cambridgeshire, by Leonard Blomefield (formerly Jenyns). Edited by Francis Darwin. Cambridge, 1903, (xviii + 84). 8vo.

**Delage, Yves.** Sur la non-régénération des sphéridies chez les Oursins. Paris, C.-R. Acad. sci., 137, 1903, (681-682); [abstract], London, J. R. Microsc. Soc., 1904, (66).

**Gough, L.** Tierleben in einem Taubenschlag in Basel. J. Ornith., Leipzig, 51, 1903, (257-258).

**Hilgendorf, F. W.** Notes on some insects. Wellington, Trans. N. Zeal. Inst., 35, 1903, (264-267).

**Joseph, Heinrich.** Der Begriff des Individuums in der Zoologie. Wien, Schr. Ver. Verbr. Natw. Kenntn., 43, 1903, (305-345).

**Staby, Ludwig.** Aus Natur und Leben. Naturwissenschaftliche Streifzüge. Berlin (Globus), [1903], (256). 23 cm. Geb. 2,20 M.

**Van der Snickt, L.** Le turbit anglais. Chasse et pêche, Bruxelles, 1902, (808-809).

## HABITS.

**Bohn, Georges.** De l'indépendance fonctionnelle des zoides d'un Annelide, à propos des phénomènes de rotation présentés par les Hirudinées. Bul. Muséum, Paris, 1903, (26-30).

**Brehm, A.** Tierleben. Bearbeitet nach der neuesten deutschen Ausgabe für die Jugend von A. M. Nikolajik. (Russ.)

St. Petersburg (Verl. von Loikin) 1903. I (Mammalia: 520 + XII mit Fig. i. T.); II, (Aves: 324 + XVII mit Fig. i. T.); III, (Reptilia, Amphibia, Pisces et Evertebrata: 459 + XXXIV mit Fig. i. T.). 30 cm.

**Davydov, K. N.** Rapport préliminaire sur un voyage à l'île de Java et aux autres îles de l'archipel Malais. (Russ.) St. Petersburg, Bull. Ac. Sc., (5 Sér.) 18, No. 1, 1903, (25-32).

**Haacke, W.** Die Thierwelt Europa's, deren Leben und Sitten. Aus dem deutschen übersetzt von V. A. Moskalova unter der Redaction von G. N. Kovalevskij. (Russ.) St. Petersburg, 1902, (596 + XVI, mit 240 Fig.). 27 cm.

**Jakobson, G. G.** Einige zoologische Beobachtungen in Turkestan im Frühling 1903. (Russ.) St. Petersburg, Trav. Soc. nat., XXXIV, 1, 1903, (Protok. No. 4-5), (183-190, 1 Fig.); deutsch. Rés., (192-193).

**Rosan, C.** Les animaux dans les proverbes. 1<sup>re</sup> et 2<sup>e</sup> parties. Paris (Ducrocq), [1902], 1<sup>re</sup> partie, (384), 2<sup>e</sup> partie, (381). 18 cm.

**Sabrazès.** L'autosuccion des mamelles chez la vache. Bordeaux, Actes soc. linn., (sér. 6, 7), 57, 1902, (Proc. verb. CLX-CLXI).

## MIGRATION.

**Bonnier, Pierre.** [Problème de l'orientation à distance]. Bul. inst. psych. internat., Paris, 2, 1902, (214-216).

## SEXUAL RELATIONS.

**Jakobson, G. G.** Einige zoologische Beobachtungen in Turkestan im Frühling 1903. (Russ.) St. Petersburg, Trav. Soc. nat., XXXIV, 1, 1903, (Protok. No. 4-5), (183-190, 1 Fig.); deutsches Rés., (192-193).

**Moffat, C. B.** The spring rivalry of birds. Some views on the limit to multiplication. Irish Nat., Dublin, 12, 1903, (152-166).

## OVIPOSITION.

**Houssay, Frédéric.** Sur la ponte, la fécondité et la sexualité chez les poules carnivores. Paris, C.-R. Acad. sci., 137, 1903, (934-936).

**Schreiner, J. F.** Rebenschneider (*Lethrus apterus* Walk.) und die Mittel zu dessen Bekämpfung. (Eine landwirthschaftliche Monographie.) (Russ.) Trd. B. entom. Üben. Kom. M. Zeml., St. Petersburg, IV, No. 1, 1903, (45, mit 10 Fig. u. 1 Taf.).

#### LUMINOSITY.

[**Carus, Paul.**] Electricity and phosphorescence in the animal world. The Open Court, Chicago, Ill., 15, 1901, (540-550, with text fig.).

**Dubois, Raphaël.** Sur une "lampe vivante de sûreté" Paris, C.-R. Acad. sci., 136, 1903, (1493-1494).

**Grisebach, Heur.** Leuchtende Lebewesen. Pharm. Ztg, Berlin, 48, 1903, (628).

**Haupt, H.** Leuchtende Organismen. Natw. Wochenschr., Jena, 19, 1903, (65-71).

**Holmes, S. J.** Phototaxis in *Volvox*. Wood's Holl, Mass., Mar. Biol. Lab. Bull., 4, 1903, (319-326); [abstract], London, J. R. Microsc. Soc., 1903, (730).

**Laloy, L.** La vision et les organes lumineux dans les profondeurs de la mer. Nature, Paris, 30, (2<sup>e</sup> semest.), (300-301, av. fig.)

#### HABITAT.

Nordisches Plankton, hrsg. v. K[arl] Brandt . . . Lfg 2. Kiel u. Leipzig (Lipsius & Tischer), 1903, (7+29+40). 29 cm. 3,60 M.

**Agassiz, Alexander.** Preliminary report and list of stations. With remarks on the deep-sea deposits by Sir John Murray. (Reports on the scientific results of the expedition to the tropical Pacific, in charge of Alexander Agassiz, by the U. S. Fish Commission steamer "Albatross" from August, 1899, to March, 1900. Commander Jefferson F. Moser, U.S.N., commanding, 1.). Cambridge, Mass., Mem. Mus. Comp. Zool. Harvard Coll., 26, 1902, (21 + 1 - 114, with 21 charts). Separate 28.8 cm.

**Ohm, Carl.** Aus den Tiefen des Weltmeeres. Schilderungen von der deutschen Tiefsee-Expedition. 2. umgearb. u. verm. Aufl. Jena (G. Fischer),

1903, (IX + 592, mit 46 Taf. u. 3 Kart.). 29 cm. 18 M. Auch in 12 Lfgn.

**Oohn, Ludwig.** Untersuchungen über das Plankton des Löwentin und einiger anderer Seen Masurens. Zs. Fischerei, Berlin, 10, 1903, (201-331, mit Taf.).

**Issel, R.** Studi sulla fauna termale euganea. Nota preventiva. Genova, Boll. Musei zool. anat. comp., 1901, N. 108, (1-5).

**Jensen, Sören, Johansen, A. C. and Levinson, F. Chr.** The plankton in the Danish seas in the years 1898-1901. II. (Danish) Kjöbenhavn, Vid. Selsk. Skr., (Ser. 6), 12, [1903], (263-326).

**Kudin, I. V.** Planktonstudien in dem Ilmen-See im Sommer 1902. (Russ.) Nikol'sk Fischzucht., St. Petersburg, 1903, 7, (14-42, mit 5 Taf.).

**Laloy, L.** La vie au fond des mers. Nature, Paris, 30, (2<sup>e</sup> semest.), 1902, (235-236, av. fig.).

**Lebedinskij, J.** Zur Höhlenfauna der Krym. (Russ.). Odessa, Ann. Soc. Nat., 25, livr. 2, 1903, (75-88, mit Taf. I-II).

**Levander, K[aarlo] M[ainio].** Über die Zusammensetzung des Zooplanktons im Finnischen Meerbusen. Helsingfors, Comptes rendus du Congrès des Naturalistes et Médecins du Nord tenu à Helsingfors du 7 au 12 juillet 1902, 1903, VI Section, (6-8).

**Lohmann, H[ans].** Neue Untersuchungen über den Reichthum des Meeres an Plankton und über die Brauchbarkeit der verschiedenen Fangmethoden. Zugleich auch ein Beitrag zur Kenntnis des Mittelmeeerauftriebs. Wiss. Meeresunters., Kiel, (N. F.), 7, Abt. Kiel, 1903, (1-87, mit 4 Taf.).

**Lo Bianco, Salvatore.** Le pesche abissali eseguite da F. A. Krupp col Yacht Puritan nelle adiacenze di Capri ed in altre località del Mediterraneo. Mitt. zool. Stat. Neapel, Berlin, 16, 1903, (109-279, mit 3 Taf.).

**Marsson, M.** Die Fauna und Flora des verschmutzten Wassers und ihre Beziehung zur biologischen Wasseranalyse. Plön, ForschBer. biol. Stat., 10, 1903, (60-73).

**Nestler, K[arl].** Das Tierleben der Alpenseen nach den neueren Forschungen dargestellt. Wissenschaftliche Beilage zum Jahresberichte der II.

städtischen Realschule zu Leipzig für das Schuljahr Ostern 1901 bis Ostern 1902. Leipzig (Druck v. B. Zechel), 1902, (III + 56). 25 cm.

**Ostergren, H[jalmar].** Animal life in the deep sea. Outlines of lectures held during the summer courses in Uppsala, 1901. (Swedish) Uppsala, 1901, (20). 21 cm.

**Ostwald, Wolfgang.** Theoretische Planktonstudien. Zool. Jahrb., Jena, Abt. f. Syst., **18**, 1903, (1-62, mit 4 Taf.).

——— Zur Lehre vom Plankton (Nach Vorträgen . . .). Natw. Wochenschr., Jena, **18**, 1903, (481-486).

——— Ueber die physikalisch-chemischen Bedingungen des Schwebens im Wasser, mit besonderer Rücksicht auf das Plankton, und über eine neue theoretische Betrachtungsweise in der Planktologie. Verh. Ges. D. Natf., Leipzig, **74**, (1902), II, 1, 1903, (155-157).

——— Ueber eine neue theoretische Betrachtungsweise in der Planktologie, insbesondere über die Bedeutung des Begriffs der „inneren Reibung des Wassers“ für dieselbe. Plön, ForschBer. biol. Stat., **10**, 1903, (1-49).

**Paganetti-Hummler.** Die Höhlenfauna Oesterreich-Ungarns und des Occupationsgebietes. OestUng. Rev., Wien, **29**, 1902, (14-32).

**Redeke, H[einrich] C[arl] und Breemen, P. J. van.** . . . Plankton und Bodentiere in der Nordsee gesammelt . . . August, 1901 . . . (Holländisch) Helder, Tijdschr. Ned. Dierk. Ver., (Ser. 2), **8**, [1903], (118-147).

**Ricker, Maurice.** Plankton studies and their utility. Missoula, Bull. Univ. Mont., No. **17**, Biol. Ser. No. 5, 1903, (281-285).

**Schnee.** Einige Bemerkungen über die Tierwelt der Litoralregion von Jaluit. Zs. Natw., Stuttgart, **75**, (1902), 1903, (373-384).

**Scourfield, D. J.** Lakes and their scientific investigation. London, Proc. S. Lond. Ent. Nat. Hist. Soc., **1902**, (61-66).

**Skorikov, A[leksandr] S[tepanovič].** Zur Frage über die Verbreitung der Organismen in den Flüssen. (Russ.)

Věst. rybopromysl., St. Peterburg, **1903**, XVIII., (9-16).

**Steuer, Adolf.** Beobachtungen über das Plankton des Triester Golfes im Jahre 1902. (Mitt. aus d. zool. Stat. Triest. No. 8). Zool. Anz., Leipzig, **27**, 1903, (145-148, mit 1 Taf.).

**Ulrich, Carl Jost.** A contribution to the subterranean fauna of Texas. [Arthropoda, with nn. spp. in Crustacea, Arachnida and Aptera]. Contributions from the Zoological Laboratory of the Indian University No. **34** in Lincoln, Nebr., Trans. Amer. Microsc. Soc., **23**, 1901, [1902], (83-100, with pl.).

**Vallentin, R.** Observations on the Plankton of Looe pool. Truro, J. R. Inst. Cornwall, **15**, 1903, (328-344).

**Viré, Armand.** La faune et la flore souterraines du Puits de Padirac (Lot). Bul. Muséum, Paris, **1902**, (601-607, av. fig.).

——— La faune souterraine. Châlon-sur-Saône, Bul. soc. sci. nat., (n. sér.), **8**, 1902, (170-174, 199-202, 230-233).

**Voigt, Max.** Das Zooplankton des kleinen Uklei- und Plus-Sees bei Plön. Plön, ForschBer. biol. Stat., **10**, 1903, (105-115).

**Zykov, W[ladimir].** Bemerkung über das Winterplankton der Wolga bei Saratow. Zool. Anz., Leipzig, **26**, 1903, (544-546).

——— Bemerkung über das Plankton der Altwässer des oberen Jenissees. Zool. Anz., Leipzig, **26**, 1903, (626-628).

#### INSTINCT AND PSYCHOLOGY.

**Beard, J[ames] Carter.** Are the senses of the lower animals superior to ours? Sci. Amer., New York, N.Y., **88**, 1903, (26).

——— Have the lower animals other senses than ours? Sci. Amer., New York, N.Y., **88**, 1903, (378-379).

**Christoleit, E.** Zur Erwägung über Instinkt und über darwinistisches Monopol in der Naturwissenschaft. Zool. Garten, Frankfurt a. M., **44**, 1903, (20-24).

**Ettlinger, Max.** Untersuchungen über die Bedeutung der Deszendenztheorie für die Psychologie. Köln (J. P. Bachem in Komm.), 1903, (86). 24 cm. 1,50 M.

**Gard.** Les jeux chez les animaux. Bul. inst. psych. internat., Paris, 2, 1902, (213-214).

**Jacquot, Lucien.** La notion du temps chez les animaux. Nature, Paris, (1<sup>er</sup> sem.), 31, 1903, (348).

**Kolbe, H. J.** Ueber die psychischen Funktionen der Tiere. Natw. Wochenschr., Jena, 19, 1903, (1-7).

**Marshall, William.** Charakterbilder aus der heimischen Tierwelt. Leipzig (A. Twietmeyer), 1903, (III + 402). 22 cm. Geb. 6 M.

**Morgan, C. Lloyd.** The beginnings of mind. Int. Q., Burlington, Vt. 6, 1902, ([330]-352).

**Perrier, Edmond.** L'instinct. Bul. inst. psych. internat., Paris, 1, 1901-1902, (305-320).

**Schröder, Chr.** Ueber experimentell erzielte Instinktvariationen. Verh. D. zool. Ges., Leipzig, 13, 1903, (158-166).

**Siedel, L. E.** Das Leben der Tiere in Charakterbildern und abgerundeten Gemälden. Ein naturhistorisches Lesebuch für Schule und Haus. 3. Aufl. Langensalza (F. G. L. Gressler), 1902, (VIII + 479). 23 cm. 3,50 M.

**Thorndike, Edward L[ee].** The experimental method of studying animal intelligence. Int. Mon., Burlington, Vt., 5, 1902, (224-238).

**Uexküll, J. von.** Psychologie und Biologie in ihrer Stellung zur Tierseele. Ergebn. Physiol., Wiesbaden, 1, Abt. 2, 1902, (212-233).

**Wagner, V. A.** Die biologische Methode in der Zoopsychologie. (Russ.) St. Petersburg, Trav. Soc. nat., XXXIII, 2, 1903 (1-96).

**Witchell, C. A.** Some instances of intelligence in animals. Gloucester, Proc. Cottswold Nat. F. Cl., 14, 1903, (119-125).

#### SYMBIOSIS.

**Gamble, F. W. and Keeble, F.** The bionomics of *Convoluta roscoffensis* with special reference to its green cells. Q. J. Microsc. Sci., London, 47, 1903, (363-431, pls. XXX, XXXI).

**Howard, L[eland] O[ssian].** On the habits of *Entilia sinuata* [in relation to

ants]. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. 30, 1901, (75-78).

#### PARASITISM.

Jahresbericht über die Neuerungen und Leistungen auf dem Gebiete der Pflanzenkrankheiten, hrsg. v. M[ax] Hollrung. Bd. 4: Das Jahr 1901. Berlin (P. Parey), 1903, (VIII + 305). 26 cm.

**Braun, Max.** Die thierischen Parasiten des Menschen. Ein Handbuch für Studierende und Aerzte. 3 verm. u. verb. Aufl. Würzburg (A. Stuber), 1903, (XII + 360). 24 cm. 8 M.

**Crawley, Howard.** *Nosema geophili*, sp. n., a myxosporidian parasite of *Geophilus*. Philadelphia, Pa., Proc. Acad. Nat. Sci., 55, 1903, (337-338). Separate 25.6 cm.

**Galli-Valerio, Bruno.** Notes de parasitologie. Centrabl. Bakt., Jena, Abt. 1, 35, Originale, 1903, (81-91).

**Lewis, L. L.** Common parasites of domestic animals. Agric. Exp. Sta., Oklahoma, Stillwater, Bull. No. 53, 1902, (24, with 11 figs.). 23 cm. [Review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., 14, 1902, (301).

**Lutz, Adolph.** Waldmosquitos und Waldmalaria. Centrabl. Bakt., Jena, Abt. 1, 33, Originale, 1903, (282-292).

**Feipser, E[rich].** Tierische Parasiten. Ergebn. Path., Wiesbaden, 7, (1900-01), 1902, (524-595).

**Saint-Rémy, G.** Le parasitisme dans le règne animal. Rev. gén. sci., Paris, 14, 1903, (778-784).

**Scheube, B[otho].** Die Krankheiten der warmen Länder. Ein Handbuch für Aerzte. 3 umgearb. Aufl. Jena (G. Fischer), 1903, (VIII + 791, mit 13 Taf.). 25 cm. 16 M.

**Sokolowsky, Alexander.** Der Körperbau thierischen Parasiten in Beziehung zu ihrer Lebensweise. Prometheus, Berlin, 14, 1903, (785-788).

**Vierordt, Hermann.** Die klinisch wichtigen Parasiten. [In: Handbuch der Geschichte der Medizin. Bd 2.] Jena, 1903, (648-665).

**Herrn** Herr Paul L. Bal.  
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Herrn Herr Paul L. Bal.

Unterricht an landwirtschaftlichen Lehranstalten und zum Gebrauche für praktische Landwirte. Leipzig u. Breslau (K. Scholtze), 1903, (VII + 88). 20 cm. Kart. 1,20 M.

**Richter v. Binnenthal**, Friedrich. Die Rosenschädlinge aus dem Tierreiche, deren wirksame Abwehr und Bekämpfung. Ein Ratgeber für die gärtnerische Praxis, hrsg. v. Verein deutscher Rosenfreunde. Stuttgart (E. Ulmer), 1903, (X + 392). 24 cm. 4 M.

**Weinland**, E. Antifermente [Schutz der parasitischen Würmer gegen die Wirkung der Sekrete des Digestions-tractus]. Zs. Biol., München, 44, 1902, (1-15).

#### PATHOLOGY.

**Roch**, Maurice. La chirurgie chez les animaux. Rev. sci., Paris, (sér. 4), 17, 1902, (1<sup>re</sup> sem.), (311).

### 0223 VARIATION AND ÆTIOLOGY.

#### GENERAL.

**Bateson**, W. Variation and differentiation. [A criticism of Pearson's "Fundamental conceptions of biology," 1902]. Cambridge (Printed for the author), 1903, (23).

**Davenport**, C[harles] B[enedict]. The animal ecology of the Cold Spring sand spit, with remarks on the theory of adaptation. [With bibliography.] Chicago, Ill., Dec. Pub. Univ. Chic., (Ser. I), 10, 1903, ([155]-176, with text fig.).

**Eigenmann**, Carl. H. and **Kennedy**, Clarence. Variation notes. Bloomington, Cont. Zool. Lab. Indiana Univ., No. 52 in Wood's Holl, Mass., Mar. Biol. Lab. Bull., 4, 1903, (227-230).

**Favre**, A. Variations des êtres organisés. Bul. Agric., Neuchâtel, 11, 1902, (200-204).

**Gaskell**, W. H. The origin of Vertebrates deduced from the study of *Ammocetes*. Part xi. The origin of the Vertebrate body cavity and excretory organs; the meaning of the somites of the trunk and of the ductless glands. J. Anat. Physiol., London, 17, 1903, (163-219).

**Kellogg**, V[ernon] L[yman] and **Bell**, R. G. Variations induced in larval, pupal and imaginal stages of *Bombyx mori* by controlled varying food supply. Science, New York, N.Y., (N. Ser.), 18, 1903, (741-748).

**McIntosh**, D. C. Variation in "*Ophiocoma nigra*" (O. F. Müller). Biometrika, Cambridge, 2, 1903, (463-473).

**Meisenheimer**, J[ohannes]. Die Methode der Variationsstatistik und ihre bisherigen Ergebnisse auf dem Gebiete der Zoologie. Zusammenfassende Uebersicht. Natw. Wochenschr., Jena, 18, 1903, (229-234, 241-245).

**Myers**, C. S. The origin of variation. [Brief logical note.] Nature, London, 68, 1903, (224).

**Pearl**, Raymond and **Dunbar**, Frances J. Variation and correlation in *Arceia*. Biometrika, Cambridge, 2, 1903, (321-337).

**Vernon**, H[orace] M[iddleton]. Variation in animals and plants. New York (H. Holt & Co.), 1903, (ix + 415, with illus.). 20.5 cm.

**Viré**, Armand. Influence de la lumière et de l'obscurité sur la transformation des animaux. Observations et expériences. Paris, Bul. mém. soc. anthr., (sér. 5), 3, 1902, (581-589).

**Woodward**, H. The President's address. Some ideas on life. London, J. R. Microsc. Soc., 1903, (142-157).

#### SUBSTANTIVE VARIATION.

**Camerano**, Lorenzo. Ricerche somatometriche in Zoologia. [Conferenza]. Mon. zool. ital., Firenze, 13, 1902, (Supplemento), (13-15).

**Gadow**, H. Evolution of the colour-pattern and orthogenetic variation in certain Mexican species of lizards, with adaptation to their surroundings. London, Proc. R. Soc., 72, 1903, (109-125, pls. III-V).

**Giglioli**, H. H. The strange case of *Athene chiaradiae*. Ibis, London, 1903, (1-18, pl. I).

**Hamilton**, G. E. H. **Barrett**-. Winter whitening of mammals and birds. Dublin, Proc. R. Irish Acad., 24, 1903, (303-314).



**Klunzinger, C. B.** Ueber Melanismus bei Tieren im allgemeinen und bei unseren einheimischen insbesondere. Stuttgart, Jahreshefte Ver. Natk., **59**, 1903, (287-297).

**Willem, Victor.** L'influence de la lumière sur la pigmentation de *Isotoma tenebricola*. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (193-196).

#### MERISTIC VARIATION.

**Schuster, E. H. J.** Variation in "*Eupagurus prideauxi*" (Heller). Biometrika, Cambridge, **2**, 1903, (191-210).

#### TERATOLOGICAL VARIATION.

**Houssay, Frédéric.** Sur un poulet ayant vécu 7 jours après l'éclosion avec un second jaune inclus dans l'abdomen. Paris, C.-R. Acad. sci., **136**, 1903, (1709-1710).

**Lesbre et Forgeot.** Etude anatomique d'un fœtus bovin sycéphalien d'un genre intermédiaire aux genres janiceps et iniope d'Is. Geoffroy Saint-Hilaire. J. anat. physiol., Paris, **39**, 1903, (11-38, 22 fig.).

**Quinet.** Chiens nus, hommes velus. Bruxelles (Vanbuggenhoudt), 1901 (16, av. figs.) 12mo.

**Rabaud, E.** Fragments de tératologie générale: l'union des parties similaires. Bul. sci. France, Belgique, Paris, **37**, 1903, (436-460).

**Regnault, Félix.** Les causes de la polydactylie. Naturaliste, Paris, (sér. 2), **25**, 1903, (108-110).

**Tur, I. Ja.** Zur Kasuistik und Theorie der mehrkeimigen Missbildungen. Arb. a. d. zoot. Labor. d. Univ. Warschau, No. XXIX (Russ.) Warszawa, Izv. Univ., **1903**, (18, mit 9 fig. u. 1 Taf.).

**Windle, B. C. A.** Thirteenth report on recent teratological literature. J. Anat. Physiol., London, **17**, 1903, (298-313).

#### BIONOMIC VARIATION.

**Schröder, Chr.** Ueber experimentell erzielte Instinktvariationen. Verh. D. zool. Ges., Leipzig, **13**, 1903, (168-166).

#### HEREDITY.

**Bateson, W.** The present state of knowledge of colour-heredity in mice and rats. London, Proc. Zool. Soc., **1903**, **2**, (71-98).

On Mendelian heredity of three characters allelomorphic to each other. Cambridge, Proc. Phil. Soc., **12**, 1903, (153-154).

Mendel's principles of heredity in mice. Nature, London, **67**, 1903, (462-463). Cf. Weldon, *ib.* (512); Bateson, *ib.* (585); and Weldon, *ib.* (610).

**Blanchard, N.** On inheritance (grand-parent and offspring) in thoroughbred racehorses. Biometrika, Cambridge, **2**, 1903, (229-234).

**Castle, W. E.** Mendel's law of heredity [with bibliography]. Cambridge, Mass., Cont. Mus. Comp. Zool. Harvard Coll., No. **136**, in Boston, Mass., Proc. Amer. Acad. Arts Sci., **38**, 1903, ([533]-548).

The heredity of sex. (Cambridge, Mass., Cont. Mus. Comp. Zool. Harvard Coll., No. **137**.) Cambridge, Mass., Bull. Mus. Comp. Zool. Harvard Coll., **40**, 1903, (189-218). Separate. 24.6 cm.

and **Allen, Glover M.** The heredity of albinism [with bibliography]. Cambridge, Mass., Cont. Mus. Comp. Zool. Harvard Coll., No. **142**, in Boston, Mass., Proc. Amer. Acad. Arts Sci., **38**, 1903, ([601]-622).

**Contagne, Georges.** Sur les facteurs élémentaires de l'hérédité. Paris, C.-R. Acad. sci., **137**, 1903, (1075-1077).

Recherches expérimentales sur l'hérédité chez les vers à soie. Bul. sci. France Belgique, Paris, **37**, 1903, (1-194, av. fig. et 9 pls.).

**Doncaster, L.** Mendel's law of heredity in insects. Ent. Rec., London, **15**, 1903, (142-144).

**Häcker, Valentin.** Ueber die physiologischen Grundlagen der Vererbungserscheinungen. Stuttgart, Jahreshefte Ver. Natk., **59**, 1903, (LXXXIII-LXXXV).

**Kidd, W.** The direction of hair in animals and man. London, 1903, (xii + 154). 8vo.

**Lee, Alice.** On inheritance (great-grandparents and great-great-grandparents and offspring) in thoroughbred racehorses. *Biometrika*, Cambridge, **2**, 1903, (234-240).

**Lutz, F. E.** Note on the influence of change in sex on the intensity of heredity. *Biometrika*, Cambridge, **2**, 1903, (237-240).

**Rumbaum, M[oritz].** Die Vererbung erworbener Eigenschaften. Bonn, SitzBer. Ges. Natk., 1903, med. Sektion, (19-26).

**Orschansky, I[sak].** Die Vererbung im gesunden und krankhaften Zustande und die Entstehung des Geschlechts beim Menschen. Stuttgart (F. Enke), 1903, (XI + 348). 25 cm. 9 M.

**Pearson, K.** The law of ancestral heredity. *Biometrika*, Cambridge, **2**, 1903, (211-229).

— and **Lee, Alice.** On the laws of inheritance in man. I. Inheritance of physical characters. *Biometrika*, Cambridge, **2**, 1903, (357-462).

**Regnault, Félix.** La consanguinité. *Naturaliste*, Paris, (sér. 2), **24**, 1902, (288-289).

**Sergi, G[iuseppe].** Some ideas concerning biological heredity. [Transl.] *The Monist*, Chicago, Ill., **12**, 1901, ([1]-20, with text fig.).

**Seuffer, Rob.** Die Kontinuität des Keimprotoplasmas. Eine Prioritätsfrage. *G. Jägers Monatsbl.*, Stuttgart, **21**, 1902, (149-152).

**Weldon, W. F. R.** Mr. Bateson's revisions of Mendel's theory of inheritance. *Biometrika*, Cambridge, **2**, 1903, (286-298).

**Woods, F. A.** Mendel's laws and some records in rabbit breeding. *Biometrika*, Cambridge, **2**, 1903, (299-306).

#### CROSSES AND HYBRIDS.

**Castle, W. E.** Mendel's law of heredity [with bibliography]. *Science*, New York, N.Y., (N. Ser.), **18**, 1903, (396-406).

**Darbishire, A. D.** Second and third reports on the result of crossing Japanese waltzing mice with European

albino races. *Biometrika*, Cambridge, **2**, 1903, (165-173, 282-285).

**Doncaster, L.** Experiments in hybridisation, with special reference to the effect of conditions on dominance. *London, Phil. Trans. R. Soc.*, 1903, (119-173); [Prelim. Abstracts], *London, Proc. R. Soc.*, **61**, 1903, (497); *Nature*, *London*, **68**, 1903, (94).

**Giard, A.** Croisement d'animaux de races différentes. *Feuille jeunes natural.*, Paris, (sér. 4), **38**, 1903, (223).

**Guyer, M. F.** Hybridism and the germ-cell. *Cincinnati, Ohio, Univ. Ciucin. Bull.*, No. **21**, 1902, (20, with pl.). 23.5 cm.

**Zulueta, A. de.** Question sur le croisement d'animaux de race différente. *Feuille jeunes natural.*, Paris, (sér. 4), **33**, 1903, (206).

#### EVOLUTION.

**Beushausen, Louis.** Die Entwicklung der Tierwelt. [In: *Weltall und Menschheit*, hrsg. v. H. Kraemer, Bd 2.] *Berlin*, 1902-1903, (409-518, mit Taf.).

**Breitenbach, Wilhelm.** Fleischmann gegen Darwin. *Zs. Natw.*, Stuttgart, **75**, (1902), 1903, (325-340).

**Castle, W. E.** Mendel's law of heredity [with bibliography]. *Science*, New York, N.Y., (N. Ser.), **18**, 1903, (396-406).

**Caton, R.** Abstract of inaugural address on acquired differences in structure and function between the right and left sides of the body. *Liverpool, Proc. biol. Soc.*, **17**, 1903, (3-14).

**Cook, O[rator] F[uller].** Evolution, cytology and Mendel's laws. *Pop. Sci. Mon.*, New York, N.Y., **63**, 1903, (219-228).

**Dacqué, Edgar.** Der Descendenzgedanke und seine Geschichte vom Altertum bis zur Neuzeit. *München* (E. Reinhardt), 1903, (III + 120). 26 cm. 2 M.

**Don Heede, Ad. Van.** De l'évolution vitale. *Rev. Hortic. Suisse Rom.*, Genève, **34**, 1902, (47-49).

**Dodel, Arnold.** Mosé o Darwin? *Arpino* (Fraioi), 1903, (IV + IV + 219). 8vo.

**Duncker, G.** Ueber Asymmetrie bei „*Gelasimus pugilator*“ Latr. Biometrika, Cambridge, **2**, 1903, (307-320).

**Elmond, Józef.** [La généalogie des animaux. Dans : Heflich A. et Milchalski S.: Guide pour les autodidactes. V Partie, I Livraison] (Polonnais) Warszawa (Kasa Mianowskiego, Gebethner i Wolff), 1903, (307-316).

**Errera, L.** De quelques progrès récents de la théorie de l'évolution. Bruxelles, Rev. Univ., **1903**, (641-691).

**Fleischmann, Albert.** Die Descendenztheorie. Gemeinverständliche Vorlesungen über den Auf- und Niedergang einer naturwissenschaftlichen Hypothese. Leipzig (A. Georgi), 1901, (VII + 274). 24 cm.

——— Die Darwin'sche Theorie. Gemeinverständliche Vorlesungen über die Naturphilosophie der Gegenwart, gehalten vor Studirenden aller Fakultäten. Leipzig (G. Thieme), 1903, (VII + 402). 25 cm. 7,50 M.

**Fraas, E[berhard].** Dauerformen in der Tierwelt. Stuttgart, Jahreshefte Ver. Natk., **59**, 1903, (LXXXII-LXXXIII).

**Fry, Sir E.** [Letter] on natural selection. Nature, London, **67**, 1903, (114). Cf. Galton, ib. (343).

**Giuffrida-Ruggeri, V.** Qualche contestazione intorno alla più vicina filogenesi umana. Mon. zool. ital., Firenze, **13**, 1902, (257-270).

**Hartmann, Eduard von.** Die Abstammungslehre seit Darwin. Ann. Natphilos., Leipzig, **2**, 1903, (285-355).

**Hickson, S. J.** The mechanics of development. Presidential address. Manchester, Trans. Microsc. Soc., **1902**, 1903, (28-37).

**Howard, H. E.** On sexual selection and the æsthetic sense in birds. Zoologist, London, (Ser. 4), **7**, 1903, (407-417).

**Jaekel, [Otto].** Erwiderung auf Herrn Plate's Kritik (Naturw. Wochenschrift p. 101) meines Aufsatzes über Descendenz. Natw. Wochenschr., Jena, **18**, 1903, (231-235).

**Koken, Ernst.** Palaeontologie und Descendenzlehre. Vortrag . . . Jena (F. Fischer), 1902, (33). 24 cm. 1 M.

**Loche, Wilhelm.** [Quelques nouvelles tendances dans la théorie de la descendance]. (Suédois et finnois) Helsingfors, Comptes rendus du Congrès des Naturalistes et Médecins du Nord tenu à Helsingfors du 7 au 12 juillet 1902, **1903**, (25-41, av. 12 pl.); F. Tidskr. Helsingfors, **1902**, 53, (453-471, av. 12 pl.); Luonnon Ystävä, Helsingfors, **1903**, 7, (46-52, 87-93, av. 12 pl.).

**Morgan, Thomas Hnnt.** Evolution and adaptation. New York, London (Macmillan Co.), 1903, (xiii + 470, with illustr.). 23 cm.

**Nichols, John Benjamin.** Spencer's definition of evolution. The Monist, Chicago, Ill., **13**, 1902, (136-138).

**Osborn, Herbert.** Highways and byways of animal life. Pop. Sci. Mon., New York, N.Y., **63**, 1903, (499-515).

**Pearson, K.** Mathematical contributions to the theory of evolution. On homotypis in homologous but differentiated organs. London, Proc. R. Soc., **71**, 1903, (288-313).

——— Mathematical contributions to the theory of evolution. XII. On a generalised theory of alternative inheritance with special reference to Mendel's laws. London, Proc. R. Soc., **72**, 1903, (505-509).

**Poulton, E. B.** What is a species? President's Address. London, Proc. Ent. Soc., **1903**, (lxxvii-cxvi).

**Reeve, H. C.** Some notes on heredity and evolution. Stafford, Rep. N. Staff. F. Cl., **37**, 1903, (67-75).

**Rosa, Daniel.** Die progressive Reduktion der Variabilität und ihre Beziehungen zum Aussterben und zur Entstehung der Arten. Im Einverständnis mit dem Verf. aus dem Ital. übers. v. Heinrich Bosshard. Jena (G. Fischer) 1903, (III + 106). 24 cm. 2,50 M.

**Smith, Geoffrey.** *Actinosphaerium eichhorni*. A biometrical study in the mass relations of nucleus and cytoplasm. Biometrika, Cambridge, **2**, 1903, (241-254).

**Summers, H. E.** Some problems of heredity and evolution. (Presidential address). Des Moines, Proc. Iowa Acad. Sci., **10**, (1902), 1903, (26-40).

**Vries, Hugo de.** On the origin of species. [Translated from Album der Natuur by H. T. A. Hus.] Pop. sci.

Mon., New York, N.Y., 62, 1903, (481-496).

**Weismann, August.** Vorträge über Descendenztheorie, gehalten an der Universität zu Freiburg i. B. Bd 1. 2. Jena (G. Fischer), 1902, (XII + 456; VI + 462, mit 3 Taf.). 24 cm. 20 M.

**Wettstein, Richard** von. Der Neo-Lamarckismus. Verh. Ges. D. Natf., Leipzig, 74, (1902), 1, 1903, (77-91).

Der Neo-Lamarckismus und seine Beziehungen zum Darwinismus. Vortrag . . . Jena (G. Fischer), 1903, (30). 24 cm.

**Wieland, G. R.** Polar climate in time the major factor in the evolution of plants and animals. Amer. J. Sci., New Haven, Conn., (Ser. 4), 16, 1903, (401-430).

**Wilson, Edmund B.** Mr. Cook on "Evolution, cytology, and Mendel's laws." Pop. Sci. Mon., New York, N.Y., 64, 1903, (88-89).

**Woodland, W.** On the phylogenetic cause of the transposition of the testes in Mammalia; with remarks on the evolution of the diaphragm and the metanephric kidney. London, Proc. Zool. Soc., 1903, 1, (319-340).

**Yatsu, Naohide.** The origin of Metazoa. (Japanese) Dobuts. Z., Tokyo, 15, 1903, (227-234).

## 0227 GEOGRAPHICAL ZOOLOGY.

### Geographical Distribution.

**Weissenheimer, Johannes.** Die bisherigen Forschungen über die Beziehungen der drei Südkontinente zu einem antarktischen Schöpfungszentrum. (Zusammenfassende Übersicht). Natw. Wochenschr., Jena, 19, 1903, (20-25).

**Müller, Robert.** Studien und Beiträge zur Geographie der Wirtschaftstiere. Bd 1: Die geographische Verbreitung der Wirtschaftstiere mit besonderer Berücksichtigung der Tropenländer. Leipzig (M. Heinsius Nachf.), 1903, (VIII + 296, mit Taf.). 23 cm. Geb. 9 M.

**Reuter, C[do] M[orannal].** Tiergeographische Schilderungen, nach dr. E. L. Trouëssart. (Schwedisch und Fin-

nisch) Stockholm, 1903, (158, mit thiergeographische Mappe). 8vo.

**Sambon, L. W.** Principles determining the geographical distribution of disease. J. trop. Med., London, 5, 1903, (101-206).

**Smith, H. M.** Marine animals in interior waters. Science, New York, N.Y., (N. Ser.), 17, 1903, (114).

**Waagen, L.** Die Verbreitung der marinen Tierwelt während der späteren Kreidezeit. Ein Beitrag zur Lösung tiergeographischer Probleme. Natur u. Offenb., Münster, 49, 1903, (321-326).

**Wesenberg-Lund, C.** Sur l'existence d'une faune relicte dans le lac de Furesö. Kjöbenhavn, Vid. Selsk. Overs., 1902, 1903, (257-303, with 1 map).

**Williams, Henry Shaler.** Shifting of faunas as a problem of stratigraphic geology. Rochester, N.Y., Proc. Acad. Sci., 14, 1903, (177-190, with pl.).

### Topographical Zoology.

#### c OCEAN AS A WHOLE.

Nordisches Plankton, hrzg. v. K[arl] Brandt . . . Lfg 2. Kiel u. Leipzig (Lipsius & Tischer), 1903, (7 + 29 + 40). 29 cm. 3,60 M. [0219].

**Lang, Arnold.** La signification biologique de la beauté d'une partie de la faune marine. Verh. Schweiz. Natf. Ges., Aarau, 86, 1903, (102-117); Arch. Sci. Phys., Genève, (sér. 4), 16, 1903, (594-596).

**Pelseneer, Paul.** Les abîmes de la mer et leurs habitants. Bruxelles (Imprimerie J. H. Moreau), 1903, (19). 8vo. fr 0,75.

#### d EUROPE.

**Haacke, W.** Die Tierwelt Europa's, deren Leben und Sitten. Aus dem deutschen übersetzt von V. A. Moskaleva unter der Redaction von G. N. Kovalevskij. (Russ.) St. Petersburg, 1902, (596 + XVI, mit 240 Fig.). 27 cm.

**Nestler, K[arl].** Das Tierleben der Alpenseen nach den neueren Forschungen dargestellt. Wissenschaftliche

**Duncker, G.** Ueber Asymmetrie bei „*Gelasimus pugillator*“ Latr. Biometrika, Cambridge, 2, 1903, (307-320).

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**Woodland**, W. On the phylogenetic cause of the transposition of the testes in Mammalia; with remarks on the evolution of the diaphragm and the metanephric kidney. London, Proc. Zool. Soc., **1903**, 1, (319-340).

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**Sambon**, L. W. Principles determining the geographical distribution of disease. J. trop. Med., London, **5**, 1903, (101-206).

**Smith**, H. M. Marine animals in interior waters. Science, New York, N.Y., (N. Ser.), **17**, 1903, (114).

**Waagen**, L. Die Verbreitung der marinen Tierwelt während der späteren Kreidezeit. Ein Beitrag zur Lösung tiergeographischer Probleme. Natur u. Offenb., Münster, **49**, 1903, (321-326).

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Nordisches Plankton, hrzg. v. K[arl] Brandt . . . Lfg 2. Kiel u. Leipzig (Lipsius & Tischer), 1903, (7 + 29 + 40). 29 cm. 3,60 M. [0219].

**Lang**, Arnold. La signification biologique de la beauté d'une partie de la faune marine. Verh. Schweiz. Natf. Ges., Aarau, **86**, 1903, (102-117); Arch. Sci. Phys., Genève, (sér. 4), **16**, 1903, (594-596).

**Pelseneer**, Paul. Les abîmes de la mer et leurs habitants. Bruxelles (Imprimerie J. H. Moreau), 1903, (19). 8vo. fr 0,75.

#### d EUROPE.

**Haacke**, W. Die Tierwelt Europa's, deren Leben und Sitten. Aus dem deutschen übersetzt von V. A. Moskaleva unter der Redaction von G. N. Kovalevskij. (Russ.) St. Petersburg, 1902, (596 + XVI, mit 240 Fig.). 27 cm.

**Nestler**, K[arl]. Das Tierleben der Alpenseen nach den neueren Forschungen dargestellt. Wissenschaftliche

**Duncker, G.** Ueber Asymmetrie bei „*Gelasimus pugilator*“ Latr. Biometrika, Cambridge, 2, 1903, (307-320).

**Edmond, Józef.** [La généalogie des animaux. Dans : Heflich A. et Milchalski S.: Guide pour les autodidactes. V Partie, I Livraison] (Polonnais) Warszawa (Kasa Mianowskiego, Gebethner i Wolff), 1903, (307-316).

**Errera, L.** De quelques progrès récents de la théorie de l'évolution. Bruxelles, Rev. Univ., 1903, (641-691).

**Fleischmann, Albert.** Die Descendenztheorie. Gemeinverständliche Vorlesungen über den Auf- und Niedergang einer naturwissenschaftlichen Hypothese. Leipzig (A. Georgi), 1901, (VII + 274). 24 cm.

— Die Darwin'sche Theorie. Gemeinverständliche Vorlesungen über die Naturphilosophie der Gegenwart, gehalten vor Studierenden aller Fakultäten. Leipzig (G. Thieme), 1903, (VII + 402). 25 cm. 7,50 M.

**Fraas, E[berhard].** Dauerformen in der Tierwelt. Stuttgart, Jahreshefte Ver. Natk., 59, 1903, (LXXXII-LXXXIII).

**Fry, Sir E.** [Letter] on natural selection. Nature, London, 67, 1903, (114). Cf. Galton, ib. (343).

**Giuffrida-Ruggeri, V.** Qualche contestazione intorno alla più vicina filogenesi umana. Mon. zool. ital., Firenze, 13, 1902, (257-270).

**Hartmann, Eduard von.** Die Abstammungslehre seit Darwin. Ann. Natphilos., Leipzig, 2, 1903, (285-355).

**Hickson, S. J.** The mechanics of development. Presidential address. Manchester, Trans. Microsc. Soc., 1902, 1903, (28-37).

**Howard, H. E.** On sexual selection and the æsthetic sense in birds. Zoologist, London, (Ser. 4), 7, 1903, (407-417).

**Jaekel, [Otto].** Erwiderung auf Herrn Plate's Kritik (Naturw. Wochenschrift p. 101) meines Aufsatzes über Descendenz. Natw. Wochenschr., Jena, 18, 1903, (234-235).

**Koken, Ernst.** Palaeontologie und Descendenzlehre. Vortrag . . . Jena (F. Fischer), 1902, (33). 24 cm. 1 M.

**Leche, Wilhelm.** [Quelques nouvelles tendances dans la théorie de la descendance]. (Suédois et finnois) Helsingfors, Comptes rendus du Congrès des Naturalistes et Médecins du Nord tenu à Helsingfors du 7 au 12 juillet 1902, 1903, (25-41, av. 12 pl.); F. Tidskr. Helsingfors, 1902, 53, (453-471, av. 12 pl.); Luonnon Ystäv., Helsingfors, 1903, 7, (46-52, 87-93, av. 12 pl.).

**Morgan, Thomas Hunt.** Evolution and adaptation. New York, London (Macmillan Co.), 1903, (xiii + 470, with illustr.). 23 cm.

**Nichols, John Benjamin.** Spencer's definition of evolution. The Monist, Chicago, Ill., 13, 1902, (136-138).

**Osborn, Herbert.** Highways and byways of animal life. Pop. Sci. Mon., New York, N.Y., 63, 1903, (499-515).

**Pearson, K.** Mathematical contributions to the theory of evolution. On homotypy in homologous but differentiated organs. London, Proc. R. Soc., 71, 1903, (288-313).

— Mathematical contributions to the theory of evolution. XII. On a generalised theory of alternative inheritance with special reference to Mendel's laws. London, Proc. R. Soc., 72, 1903, (505-509).

**Poulton, E. B.** What is a species? President's Address. London, Proc. Ent. Soc., 1903, (Lxxvii-cxvi).

**Reeve, H. C.** Some notes on heredity and evolution. Stafford, Rep. N. Staff. F. Cl., 37, 1903, (67-75).

**Rosa, Daniel.** Die progressive Reduktion der Variabilität und ihre Beziehungen zum Aussterben und zur Entstehung der Arten. Im Einverständnis mit dem Verf. aus dem Ital. übers. v. Heinrich Bosshard. Jena (G. Fischer), 1903, (III + 112).

**Smith, Richard.** mass rel. Biometrika 2541.

U. S. WAR DEPARTMENT BUREAU OF INSULAR AFFAIRS. Official handbook: Description of the Philippines [and catalogue of the Philippine exhibit, Louisiana purchase exposition, St. Louis, Mo., 1904]. Revised and completed with the aid of chiefs of bureaus and experts of the Philippine government [in 2 vols.]. Part I. Manila, 1903, (449). 23.2 cm.

Davydov, K. N. Rapport préliminaire sur un voyage à l'île de Java et aux autres îles de l'archipel Malaïa. (Russ.) St. Peterburg, Bull. Ac. Sc., (5 Sér.), 18, No. 1, 1903, (25-32).

Kühenthal, Willy]. Schlusswort [zu: Ergebnisse einer zool. Forschungsreise in den Molukken u. Borneo]. Frankfurt a. M., Abh. Senckenb. Ges., 25, 1903, (969-988).

Semon, Richard. Zoologische Forschungsreisen in Australien und dem malayischen Archipel. Mit Unterstützung des Herrn Dr. Paul von Ritter ausgeführt i. d. J. 1891-1893. Bd 5: Wirbellose Tiere, Lfg 6. Jena, Denkschr. med. Ges., 8, 1903, (643-778, I-VI, mit 16 Taf.).

Veth, P. J. Java, geographisch, ethnologisch, historisch. 2te Aufl., bearbeitet von Joh. F. Snelleman und J[an] Frederik Niermeyer. Teil III. Geographie. [Fauna: Invertebrata (214-250); Vertebrata (251-304)]. (Holländisch) Haarlem (Erven F. Bohn), 1903, (VII + 602, mit 1 Karte). 26 cm.

Volz, M. Fauna Sumatras. Bern, Mitt. Natf. Ges., 1903, (VIII-IX).

Weber, Max. Der indo-australische Archipel und die Geschichte seiner Thierwelt. Verh. Ges. D. Natf., Leipzig, 74, (1902), I, 1903, (51-62); [review]. Nature, London, 67, 1903, (182).

## ci ASIATIC TURKEY.

Daday, Jenő. Mikroskopische Süßwasserthiere aus Turkestan. (Ungarisch) Math. Term. Ért., Budapest, 21, 1903, (324-357).

## f AFRICA.

### fa MEDITERRANEAN STATES.

Weisgerber, F. Voyage de reconnaissance au Maroc. 2<sup>e</sup> partie: Climat, flore, faune, population. Rev. gén. sci., Paris, 14, 1903, (509-519, av. fig.).

(p 2-9053)

### fb N. E. AFRICA.

Budgett, J. S. (the late). Account of his recent journey to Uganda in search of the Okapi and *Polypterus*. London, Proc. Zool. Soc., 1903, 1, (2-10).

### fd WEST AFRICA.

Destenave. Le lac Tchad. 2<sup>e</sup> partie: les habitants, la faune, la flore. Rev. gén. sci., Paris, 14, 1903, (717-727, av. fig.).

### fe CONGO STATE.

Kunene - Sambesi - Expedition. H. Baum. 1903. Im Auftrag des kolonial-wirtschaftlichen Komitees hrsg. v. O[tto] Warburg. Berlin (E. S. Mittler & S. in Komm.), 1903, (XI + 593, mit 13 Taf. u. 1 Karte). 25 cm. Geb. 20 M.

La faune au Congo. Belg. colon., Bruxelles, 1902, (509-510).

Le problème du Taganika. Au point de vue de la distribution de la faune. Mouv. géogr., Bruxelles, 1903, (131-133).

Boulenger, G. A. Additions à la faune ichthyologique du bassin du Congo. Annales du musée du Congo, publiées par ordre du secrétaire d'Etat indépendant du Congo. Zoologie. Série I. Matériaux pour la faune du Congo. Planches dessinées sous la direction de l'auteur par P. J. Smit et J. Green. Tome II fascicule 11. Bruxelles (Spineux et Cie), 1902, (19-57, pls. VII-XVI hors texte). 4to. Le fascicule 20 fr.

Verdick. Notes sur la faune du Katanga. Belg. colon., Bruxelles, 1902, (280-281, 295).

### ff EAST AFRICA.

Budgett, J. S. (the late). Account of his recent journey to Uganda in search of the Okapi and *Polypterus*. London, Proc. Zool. Soc., 1903, 1, (2-10).

Forbes, H. O. The Natural History of Sokotra and Abd-el-kuri. Being the report upon the results of the conjoint expedition to these islands in 1898-1899, by Mr. W. R. Ogilvie-Grant, of the British Museum, and Dr. H. O. Forbes, of the Liverpool Museums, together with information from other available



sources. Forming a monograph of the Islands. Liverpool, 1903, (xlvii + 598, XXVII pls.) 8vo. A collection of memoirs by specialists, and recorded in detail under their names. A description of the expedition is given by Forbes.

#### g NORTH AMERICA.

**Morse, Max.** Synopsis of North American invertebrates. 19. The *Trichodectidae*. Amer. Nat., Boston, Mass., 37, 1903, (609-624). Separate 24 cm. (Contributions from the Department of Zoology and Entomology of the Ohio State University No. 12).

#### gd CANADIAN DOMINION EAST.

**Boardman, George A.** Scientific lists [of birds and other fauna of Maine and New Brunswick]. Chapter 11 of The naturalist of the Saint Croix. . . . by S. L. Boardman. Bangor, 1903, ([298]-322).

**Schuchert, Charles.** On the Helderbergian fossils near Montreal, Canada. [Descriptions of two new species of *Chonetophoria* from Quebec and New York]. Amer. Geol., Minneapolis, Minn., 27, 1901, (245-253).

#### gg NORTH EASTERN UNITED STATES.

**NEW YORK FOREST FISH AND GAME COMMISSION.** Sixth annual report of the Forest, fish and game commission of the state of New York. [1900.] Albany, N.Y., 1901, (532, with col., pl., text fig. and map). [0020.]

— Seventh annual report. . . . Albany, 1902, (93, with pl.). 23 cm.

**Boardman, George A.** Scientific lists [of birds and other fauna of Maine and New Brunswick]. Chapter 11 of The Naturalist of the Saint Croix . . . by S. L. Boardman. Bangor, 1903, ([298]-322).

**Butts, Charles.** Fossil faunas of the Olean quadrangle. Albany Univ., N.Y., Bull. St. Mus., No. 69, 1903, (990-995).

**Clarke, John M[ason] and Ruedemann, Rudolf.** Catalogue of type specimens of Paleozoic fossils in New York state museum. Albany Univ., N.Y., Bull. St. Mus., No. 65, 1903, (847). 23 cm.

— Guelph fauna in the state of New York [with un. spp. in Brachiopoda and Mollusca]. Albany Univ., N.Y., Mem. St. Mus., No. 5, 1903, (195, with pl.). 29.8 cm.

**Cleland, Herdman Fitzgerald.** A study of the fauna of the Hamilton formation of the Cayuga Lake section in Central New York [With bibliography]. Washington, D.C., U S. Dept. Int. Bull. Geol. Surv., No. 206, 1903, (112, with pl.). 23.2 cm.

**Cummings, Edgar R.** A section of the Upper Ordovician at Vevay, Indiana. [Faunal lists, with descriptions of new species of Bryozoa]. Amer. Geol., Minneapolis, Minn., 28, 1901, (361-380, with 2 pl.).

**Davenport, C[harles] B[enedict].** The animal ecology of the Cold Spring sand spit, with remarks on the theory of adaptation. [With bibliography]. Chicago, Ill., Dec. Pub. Univ. Chic., (Ser. 1), 10, 1903, ([155]-176, with text fig.).

**Grabau, Amadeus W.** Stratigraphy of Becraft mountain, Columbia county, New York. [List of fossils, with un. spp. of Brachiopoda]. Albany Univ., N.Y., Bull. St. Mus., No. 69, 1903, (1030-1079, with map.).

**Kofoid, C[harles] A[twood].** Plankton studies 4. The plankton of the Illinois river 1894-1899 with introductory notes upon the hydrography of the Illinois river and its basin. Part 1. Quantitative investigations and general results. [With bibliography]. Urbana, Bull. Ill. Lab. Nat. Hist., 6, 1903, ([95]-629, with maps and pl.).

**Loomis, F. B.** The dwarf fauna of the pyrite layer at the horizon of the Tully limestone in western New York. Albany Univ., N.Y., Bull. St. Mus., No. 69, 1903, (892-920, with 5 pls.).

**Marsh, C[harles] Dwight.** The plankton of lake Winnebago and Green lake. Wisconsin, Madison, Geol. Nat. Hist. Surv., Bull., No. 12, 1903, (vi + 94, with pl.). 24.8 cm.

**Monroe, Charles E.** Notes on a collection of Hamilton fossils, from the town of Bethany, Genesee co., N.Y. Milwaukee, Bull. Wis. Nat. Hist. Soc., (N. Ser.), 2, 1902, (57-67).

**Schuchert, Charles.** On the Manlius formation of New York. Amer. Geol., Minneapolis, Minn., 31, 1903, (160-178).

**Talbot, Mignon.** A contribution to a list of the fauna of the Stafford limestone of New York. Amer. J. Sci., New Haven, Conn., (Ser. 4), 16, 1903, (148-150).

#### gi WESTERN UNITED STATES.

**Adams, George [Irving], Girty, George H. and White, David.** Stratigraphy and paleontology of the Upper Carboniferous rocks of the Kansas section. [Stratigraphy by G. I. Adams, Invertebrate fossils by G. H. Girty, and Fossil plants from the Upper Carboniferous and Permian by D. White]. Washington, D.C., U. S. Dept. Int., Bull. Geol. Surv., No. 211, 1903, (123, with maps). 23 cm.

**Arnold, Ralph.** The paleontology and stratigraphy of the marine Pliocene and Pleistocene of San Pedro, California. (Diss. Leland Stanford Junior University.) [Reprinted from San Francisco, Mem. Cal. Acad. Sci., 3]. in Stanford University, Cal., Leland Stanford Jr. Univ., Hopkins Seaside Lab., Cont. Biol., No. 31, 1903, (1-420, with pl.). Separate. 30.8 cm.

**Blaindell, F. E.** The three Californias [three faunal areas of California]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (173-175).

**Cookerell, Wilmatte Porter.** A trip to the Truchas peaks, New Mexico. Amer. Nat., Boston, Mass., 37, 1903, (887-891).

**Ehred, Morton John.** *Daphnia* pond. A study in environment. Missoula, Bull. Univ. Mont., No. 17, Biol. Ser. No. 5, 1903, (230-233, with pl.).

**Girty, George H.** Tabulated list of invertebrate fossils from the carboniferous section of Kansas. (Stratigraphy and paleontology of the upper carboniferous section of Kansas by George I. Adams, George H. Girty and David White). Washington, D.C., U. S. Dept.

(x 2-3053)

Int. Bull. Geol. Surv., No. 211, 1903, (73-83).

**Merriam, O[inton] Hart.** Results of a biological survey of Mount Shasta, California. Washington, D.C., U. S. Dept. Agric. Div. Biol. Surv., N. Amer. Fauna, No. 16, 1899, (179, with text, fig. and pl.). [Reprinted in 1901]. 23 cm.

**Sternberg, Charles H.** The permian life of Texas. Topeka, Trans. Kan. Acad. Sci., 18, 1903, (94-98).

Notes on the Judith river group [containing a letter from E. D. Cope.] Science, New York, N.Y., (N. Ser.), 17, 1903, (870-872).

**Yates, Lorenzo, Gordin.** Prehistoric California. Its topography, flora and fauna—with the evidence of the time of the advent of man, and his development, from the records of his past found in the soil. Los Angeles, Bull., So. Cal. Acad. Sci., 1, 1902, ([81]-86, [113]-118, 129-137, with pl.).

#### h CENTRAL AND SOUTH AMERICA AND WEST INDIES.

**O[sborn], H[enry] F[airfield].** The Cope Pampean collection [representing the Pleistocene fauna of South America, American Museum of Natural History]. Science, New York, N.Y., (N. Ser.), 17, 1903, (157-158).

#### hc WEST INDIAN ISLANDS.

**Mayer, Alfred Goldsborough.** A laboratory for the study of Marine zoology in the tropical Atlantic. Pop. Sci. Mon., New York, N.Y., 64, 1903, (41-47).

#### hh BRAZIL.

**Katzer, Friedrich.** Grundzüge der Geologie des unteren Amazonasgebietes (des Staates Pará in Brasilien). Leipzig (M. Weg), 1903, (III + 298, mit 4 Portr., 1 Karte). 26 cm. 14 M.

#### hk CHILE.

Fauna chilensis. Abhandlungen zur Kenntniss der Zoologie Chiles nach den Sammlungen von Dr. L. Plate. Bd 3,

H. 1. Zool. Jahrb., Jena, Suppl. 6, 1903, (1-214, mit 13 Taf.). 24 cm. [0030].

# i AUSTRALASIA.

**Semon, Richard.** Zoologische Forschungsreisen in Australien und dem malayischen Archipel. Mit Unterstützung des Herrn Dr. Paul von Ritter ausgeführt i. d. J. 1891—1893. Bd 5: Wirbellose Tiere, Lfg 6. Jena, Denkschr. med. Ges., 8, 1903, (643-778, I—VI, mit 16 Taf.).

# ia NEW GUINEA WITH ISLANDS FROM WALLACE'S LINE.

Ergebnisse einer zoologischen Forschungsreise in den Molukken und Borneo, im Auftrage der Senckenbergischen naturforschenden Gesellschaft ausgeführt von Dr. Willy Kükenenthal. Tl 2: Wissenschaftl. Reiseergebnisse, Bd 3, H. 4. Frankfurt a. M., Abh. Senckenb. Ges., 25, 1903, (5 Bl., S. 932-988, m. 1 Taf.).

**Davydov, K. N.** Rapport préliminaire sur un voyage à l'île de Java et aux autres îles de l'Archipel Malais. (Russ.) St. Petersburg, Bull. Ac. Sc., (5 Sér.), 18, No. 1, 1903, (25-32).

**Kükenenthal, Willy.** Schlusswort [zu: Ergebnisse einer zool. Forschungsreise in den Molukken u. Borneo]. Frankfurt a. M., Abh. Senckenb. Ges., 25, 1903, (969-988).

**Willey, A.** Zoological results based on material from New Britain, New Guinea, Loyalty Islands and elsewhere, collected during the years 1895, 1896 & 1897 by Arthur Willey. Part VI. Cambridge, 1902. 4to. [Review], Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1902, (133-135).

# ic AUSTRALIA AS A WHOLE.

**Hall, T. S.** Whence came our Australian animals? Vict. Nat., Melbourne, 20, 1903, (39-41).

**Hedley, C.** Effect of the Bassian Isthmus upon the existing marine fauna: a study in ancient geography. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, 28, 1903, (876-883, with 1 map).

# k ARCTIC.

Fauna Arctica. Eine Zusammenstellung der arktischen Tierformen mit besonderer Berücksichtigung des Spitz-

bergen-Gebietes auf Grund der Ergebnisse der deutschen Expedition in das nördliche Eismeer im Jahre 1898. Unter Mitwirkung zahlreicher Fachgenossen hrsg. v. Fritz Römer und Fritz Schaudinn. Bd. 3, Lfg 1; Lfg 2; Hartmeyer, Asciden. Jena (G. Fischer), 1903, (1-90, mit 3 Taf.; 91-412, mit 11 Taf.). 36 cm.

**Graf, L. v.** . . . [Aleksandrowak] . . . Zoologische Studienreise . . . Graz, Mitt. Natw. Ver. Steierm., 1902, 1903, (357-378).

**Knipowitsch, N.** Zur Kenntnis der physikalischen Geographie des Eismeres. Helsingfors, Comptes rendus du Congrès des Naturalistes et Médecins du Nord tenu à Helsingfors du 7 au 12 juillet 1902, 1903, (42-48).

# kd ISLANDS NORTH OF EUROPE AND ASIA.

**Birulla, A. A.** Compte-rendu du zoologue de l'expédition sur les travaux scientifiques en été 1902 pendant sa vie sur l'île Nouvelle-Sibérie. Rapports sur les travaux de l'expédition Polaire Russe dirigée par le baron Toll. V. (Russ.) St. Petersburg, Bull. Ac. Sc., (5 Sér.), 18, No. 3, 1903, (91-94).

# l ATLANTIC.

**Cleve, P[er] T[eodor].** Additional notes on the seasonal distribution of Atlantic Plankton Organisms [especially as concerns the southern hemisphere]. Göteborg, Vet. Handl., (Ser. 4), 4, 1901, (1-51).

# la NORTH ATLANTIC OCEAN.

**Cleve, P[er] T[eodor].** The Plankton of the North Sea and the Skagerrak in 1900 (1902). Stockholm, Vet.-Ak. Handl., 35, No. 7, 1901-2, (49).

**Lohmann, H[ans].** Untersuchungen über die Tier- und Pflanzenwelt sowie über die Bodensedimente des nordatlantischen Ozeans zwischen dem 38. und 50. Grade nördl. Breite. Berlin, Sitzber. Ak. Wiss., 1903, (560-583, mit 1 Taf.).

**Rodake, H[einrich] C[arl] und Breezen, P. J. van.** Plankton und Bodentiere in der Nordsee gesammelt August 1901 . . . (Holländisch) Helder,

Tijdschr. Ned. Dierk. Ver., (Ser. 2), 8, [1903], (118-147).

**lb AZORES; CANARIES; MADEIRA; CAPE VERDE.**

**Scharff, R. F.** Some remarks on the Atlantis problem. Dublin, Proc. R. Irish Acad., 24, 1903, (268-302).

**lc SOUTH ATLANTIC AND ISLANDS.**

**Vanhöffen, E[rnst].** Biologische Beobachtungen [auf der deutschen Südpolar-Expedition]. Berlin, Veröff. Inst. Meeresk., H. 2, 1902, (39-45).

**m INDIAN OCEAN.**

**Cleve, P[er] T[eodor].** Plankton from the Indian Ocean and the Malay Archipelago. (1901.) Stockholm. Vet.-Ak. Handl., 35, No. 5, 1901-2, (58, with 8 pls.).

**ma OCEAN AND ISLANDS N. OF EQUATOR.**

**Gardiner, J. Stanley.** The fauna and geography of the Maldiv and Laccadive Archipelagoes. Vol. i, Parts 2 and 3. Vol. ii, Parts 1-4. Cambridge, 1902-1903. See numerous articles in the special Records.

**Kloss, C. B.** In the Andamans and Nicobars. The narrative of a cruise in the schooner "Terrapin," with notices of the islands, their fauna, ethnology, etc. [The zoology is but slight, there are lists of mammals and birds, pp. 320-331, with some comments thereon.] London, 1903, (xvi + 373, with illustr.). 8vo.

**n PACIFIC.**

**Agassiz, Alexander.** Preliminary report and list of stations. With remarks on the deep-sea deposits by Sir John Murray. (Reports on the scientific results of the expedition to the tropical Pacific, in charge of Alexander Agassiz, by the U. S. Fish Commission steamer "Albatross" from August, 1899, to March 1900. Commander Jefferson F. Moser, U.S.N., commanding. 1.). Cambridge, Mass., Mem.

Mus. Comp. Zool. Harvard Coll., 26, 1902, (21 + 1-114, with 21 charts). Separate 28.8 cm.

**ne MARSHALL ISLANDS.**

**Schnee.** Einige Bemerkungen über die Tierwelt der Litoralregion von Jaluit. Zs. Natw., Stuttgart, 75, (1902), 1903, (373-384).

——— Darwinistische Studien auf einer Korallen-Insel. (Gemeinverst. Darwinist. Vorträge u. Abh., H. 9.) Odenkirchen (W. Breitenbach), 1903, (46). 23 cm. 1 M.

**nf FIJI ISLANDS.**

**Guppy, H. B.** Observations of a Naturalist in the Pacific between 1896 and 1899. Vol. 1. Vanua Levu, Fiji, a description of its leading physical and geological characters. London, 1903, (xx + 392, with 1 pl., 2 maps). 8vo.

**o ANTARCTIC.**

**Vanhöffen, E[rnst].** Biologische Beobachtungen [auf der deutschen Südpolar-Expedition]. Berlin, Veröff. Inst. Meeresk., H. 2, 1902, (39-45).

——— Biologischer Bericht [der deutschen Südpolar-Expedition]. Berlin, Veröff. Inst. Meeresk., H. 5, 1903, (143-154).

**oa ANTARCTIC CONTINENT.**

**Woodward, H.** Address. [Southern Continent and Fauna.] Norwich, Trans. Nat. Soc., 7, 1903, (429-444).

**0231 TAXONOMY OR CLASSIFICATION IN GENERAL.**

Das Tierreich. Eine Zusammenstellung und Kennzeichnung der rezenten Tierformen. Begründet von der zool. Gesellsch. Im Auftrage der k. preuss. Akad. d. Wissenschaften zu Berlin hrag. v. Franz Eilhard Schulze. Lfg 18. 19. Berlin (R. Friedländer & S.), 1903, (XXXI + 255; XV + 168). 26 cm. 12,60 M.; 8,40 M.

**Arnold, R.** The paleontology and stratigraphy of the marine Pliocene and Pleistocene of San Pedro, California. (Diss. Leland Stanford Junior University.) [Reprinted from San Francisco, Merr. Cal. Acad. Sci., 3] in Stanford University, Cal., Leland Stanford Jr. Univ., Hopkins Seaside Lab., Cont. Biol., No. 31, 1903, (1-420, with pl.). Separate 30.8 cm.

**Bis tram, A. Freiherr von.** Beiträge zur Kenntnis der Fauna des unteren Lias in der Val Solda. Geologisch-paläontologische Studien in den Comascher Alpen. I. Freiburg i. B., Ber. natf. Ges., 13, 1903, (116-214, mit 8 Taf.).

**Born, P.** Einmal etwas Nicht-Carabologisches. Insektenbörse, Leipzig, 20, 1903, (316-317, 323-324).

**Burckhardt, Rudolf.** Zur Geschichte der biologischen Systematik. Basel, Verh. Natf. Ges., 16, 1903, (388-440).

**Carpenter, G. H.** On the relationships between the classes of Arthropoda. Dublin, Proc. R. Irish Acad., 24, 1903, (320-360).

**Cornish, C.** The living animals of the world; a review of the animal kingdom for all, treated in an entirely new manner and edited by C. J. Cornish in co-operation with the most celebrated zoologists of the world. The Dutch edition undertaken by Dr. J. Buttikofer through Dr. J. Macleod, professor in Ghent. Brief description of quadrupeds, birds, fishes, insects, etc. (Dutch) Parts II and 12. Antwerp, Gent, 1903, (321-384): Vol. II, Parts 15-17, (65-160): Parts 22-24, (280-384). De nederlandse boekhandel. 4to. fr. 0.90.

**Daouk, E.** Mittheilungen über den Kreidecomplex von Abu Roash bei Cairo. Palaeontographica, Stuttgart, 30, II, 1903, (337-392, mit 3 Taf.).

**Dahl, F.** Erscheinungen in der modernen Systematik. Zool. Anz., Leipzig, 26, 1903, (693-696).

**Drevermann, F.** Die Fauna der oberdevonischen Tuffbreccie von Langenau bei Haiger. Berlin, Jahrb. geol. Landesanst., 21, 1901, Abh. auss. st. Pers., (99-207, mit 5 Taf.).

**Forbes, H. O.** The Natural History of Sokotra and Abd-el-kuri. Being the report upon the results of the conjoint expedition to these islands in 1898-9,

by Mr. W. R. Ogilvie-Grant, of the British Museum, and Dr. H. O. Forbes, of the Liverpool Museums, together with information from other available sources. Forming a monograph of the Islands. Liverpool, 1903, (xlvii + 598, XXVII pls.). 8vo. A collection of memoirs by specialists: recorded in detail under their names. A description of the expedition is given by Forbes.

**Lankester, E. R.** A classification of Animals from the point of view of Economic Zoology. [in] British Museum (Natural History) first report of Economic Zoology, 1903, Introduction (xi-xxxiv).

**Lo Bianco, S.** Le pesche abissali eseguite da F. A. Krupp col Yacht Puritan nelle adiacenze di Capri ed in altre località del Mediterraneo. Mitt. zool. Stat. Neapel, Berlin, 16, 1903, (109-279, mit 3 Taf.).

**Oppenheim, P.** Ueber die Fossilien der Blättermergel von Theben. München, Sitzber. Ak. Wiss., math.-physik. Cl., 32, (1902), 1903, (435-456, mit 1 Taf.).

**Paulcke, W.** Ueber die Kreideformation in Südamerika und ihre Beziehungen zu anderen Gebieten. Tl. I. (Beiträge zur Geologie und Palaeontologie von Südamerika. Unter Mitwirkung von Fachgenossen hrsg. v. G. Steinmann, X.) N. Jahrb. Min., Stuttgart, Beilagebd 17, 1903, (252-312, mit 3 Taf.).

**Sinclair, W. J.** A preliminary account of the exploration of Potter Creek cave, Shasta County, California. Science, New York, N.Y., (N. Ser.), 17, 1903, (708-712).

**Walther, K.** Das Unterdevon zwischen Marburg a. L. und Herborn (Nassau). N. Jahrb. Min., Stuttgart, Beilagebd 17, 1903, (1-75, mit 4 Taf.).

**Wollmann, A.** Die Fauna des Senons von Biewende bei Wolfenbüttel. Berlin, Jahrb. geol. Landesanst., 21, 1901, Abh. auss. st. Pers., (1-30).

**Woodworth, J. B.** On the sedentary impression of the animal whose trail is known as Climactichnites. [Suggestion of molluscan origin]. Albany Univ., N.Y., Bull. St. Mus., No. 69, 1903, (959-966, with pl.).

**Yatsu, N.** The origin of Metazoa. (Japanese) Dobuts. Z., Tokyo, 15, 1903, (227-334).

## 0403-6031 SPECIAL ZOOLOGY.

References to previous volumes will be made thus: v. N. 2, i = VOLUME FOR ZOOLOGY, 2ND ANNUAL ISSUE, pt. i.

## 0403-0431 PROTOZOA.

## TITLES.

**Aleksandrova, V. A. u. Istomina, N. A.** Beobachtungen an Infusorien (Wirkung des Salamandergiftes; einige Wirkungen der Inductionsschläge. (Russ.) St. Petersburg. Trav. Soc. nat., **XXXIV**, 1, 1903, (Protok. N. 4-5), (156-157), deutsches Rés., (159-160). [0411 0407 0431]. 1

**Annett, H. E., Dutton, J. E. and Elliott, J. H.** Report of the Malaria Expedition to Nigeria. Liverp. Sch. Trop. Medicine, Mem. 3. London (Longmans, Green & Co.) 1902, (68, 2 pls., besides charts and illustrs.) [0060 0419 0427 fd 4203 4227 fd]. 2

**Argutinsky, Petr, Fürst.** Ueber Malaria im europäischen Russland (ohne Finnland). Eine Skizze. Arch. Hyg., München, **47**, 1903, (317-326, mit 1 Kart.). [0403 0419 0431]. 3

Beiträge zur Kenntniss der Morphologie und Biologie der Malaria-Parasiten. (Russ.) Arch. sc. biol., St. Petersburg, [russ. Ausg.] **10**, 1903, No. 1, (12-48, mit 1 Taf.). [0403 0407 0415 0419]. 4

Zur Kenntniss des Tropicaparasiten (*Plasmodium praecox* Gr. u. Fel.). Die Tüpfelung der Wirtszellen der Halbmonde. Centralbl. Bakt., Jena, Abt. **34**, Originale, 1903, (144-149, mit 1 Taf.). [0403 0419 0431]. 5

**Awerinzew, S.** Beiträge zur Kenntnis der marinen Rhizopoden. Mitt. zool. Stat. Neapel, Berlin, **16**, 1903, (349-364). [0407]. 6

Ueber die Struktur der Kalkschalen mariner Rhizopoden. Zs. wiss. Zool., Leipzig, **74**, 1903, (478-490, mit 1 Taf.). [0407]. 7

**Ayrton, W.** On *Zoothamnium geniculatum*, a new Infusorian. London, J. Quek. Microsc. Cl., **8**, 1903, (407-410, pl. 21); [abstract], London, J. R. Microsc. Soc., **1903**, (504). [0407 0431]. 8

**Babes, V[ictor].** Bemerkungen über die Entdeckung des Parasiten der seuchenhaften Hämoglobinurie des Rindes (Texasfieber, Tristeza etc.) und des „Cárceag“ des Schafes. Centralbl. Bakt., Jena, Abt. 1, **33**, Originale, 1903, (449-458); [abstract], London, J. R. Microsc. soc., **1903**, (618). [0431]. 9

**Beard, J. Carter.** The *Amoeba*—a slime monster and its victim. Sci. Amer., New York, N.Y., **89**, 1903, (31). [0419 0431]. 10

**Behrens v. Rievel** [Heinrich].

**Berestneff, N[ikolaj].** Ueber einen neuen Blutparasiten der indischen Frösche. Arch. Protistenkunde, Jena, **2**, 1903, (343-348, mit 1 Taf.). [0419 0431]. 11

**Bezenberger, Ernst.** Ueber Infusorien aus asiatischen Anuren. Arch. Protistenkunde, Jena, 3, 1903, (138-174, mit 1 Taf.). [0419 0407]. 12

Neue Infusorien aus asiatischen Anuren. Zool. Anz., Leipzig, 28, 1903, (597-599). [0419 0431]. 13

**Bohn, G. v. Chéneveau, C.**

**Bortolotti, C.** Sviluppo e propagazione delle opalinine parassite del lombrico. Mon. zool. ital., Firenze, 13, 1902, (195-204, con fig.). [0407 0415 0419 0431]. 14

**Bosc, F. J.** Les épithéliomas parasitaires. La clavelée et l'épithélioma claveleux. Centralbl. Bakt., Jena, Abt. 1, 34, Originale, 1903, (413-420, 517-526, 666-674, mit 3 Taf.). [0403 0419 0431]. 15

**Boyce, R. W., Ross, R. and Sherrington, S.** The history of the discovery of Trypanosomes in Man. Lancet, London, 1903, 1, (500-513). [0403 0419]. 16

Note on the discovery of the human Trypanosome. Nature, London, 67, 1903, (56). [0403]. 17

**Brandes, Gustav.** Ueber die Natur des Vorticellen-Stieles. Zs. Natw., Stuttgart, 75, (1902), 1903, (459-460). [0431 0411]. 18

**Bruce, D.** Nomenclature of Malaria; a suggestion. Lancet, London, 1903, 1, (131, 132); Brit. Med. J., London, 1903, 1, (15). [0403 0070 1431]. 19

and **Nabarro, D.** Progress Report on Sleeping Sickness in Uganda. Rep. S. S. Comm. (Royal Soc.), 1, (11-88, 10 pls.). [Abstract], Nature, London, 68, (517). [0403 0407 0419]. 20

and **Graig, E. D.** Further Report on Sleeping Sickness in Uganda. Rep. S. S. Comm. IV, (87, 4 pls., 2 maps, and 2 text figs.). [Abstract], Lancet, London, 1903, 2, (1730-1732). [0403 0407 0419]. 21

**Calkins, Gary N[athan].** Marine Protozoa from Wood's Holl. [With bibliography.]. Washington, D.C., Bull. U. S. Fish. Com., 21, (1901), 1902, (413-468, with text fig.). [0403 0427 gg 0431]. 22

The Protozoan nucleus. Arch. Protistenkunde, Jena, 2, 1903, (213-237). [0407]. 23

**Castellani, A.** Some observations on the morphology of the *Trypanosoma* found in sleeping sickness. Brit. Med. J., London, 1903, 1, (1431-1432, 1 text fig.). [0403 0407 0419 0415 0060]. 24

On the discovery of a species of *Trypanosoma* in the cerebro-spinal fluid of cases of sleeping sickness. London, Proc. R. Soc., 71, 1903, (501-508, 2 tables); Lancet, London, 1903, 1, (1735-1736); [abstract], Nature, London, 68, 1903, (116). [0403 0407 0419 0060]. 25

Presence of *Trypanosoma* in sleeping sickness. Rep. S. S. Comm. (Royal Society), 1, (1-10, 2 tables). [Identical with preceding.]. [0407 0419 0060]. 26

Adult forms and developmental forms of the Trypanosome found in sleeping sickness. Rep. S. S. Comm. II, (9-13, pls. 1 and 2). [0403 0407 0419 0415 0060]. 27

Researches on the etiology of sleeping sickness. J. trop. Med., London, 6, 1903, (167-171, 1 pl. and 2 text-figs.). [0403 0407 0419 0060]. 28

Die Aetiologie der Schlafkrankheit der Neger. Centralbl. Bakt., Jena, Abt. 1, 35, Originale, 1903, (62-67, mit 1 Taf.). [0403 0431]. 29

**Chéneveau, C. et Bohn, G.** De l'action du champ magnétique sur les Infusoires. Paris, C.-R. Acad. sci., 136, 1903, (1579-1580). [0419 0411]. 30

**Christophers, S. R. v. Stephens, J. W.**

**Christy, C.** Malaria: the mode of entry of the spore into the red blood-corpuscle. Brit. Med. J., London, 1903, 2, (645, 1 text-fig.). [0403 0419 0060]. 31

**Ciumm, [M.].** Ricerche sugli Sporozoi. Mon. zool. ital., Firenze, 13, 1902, (Supplemento), (42-43). [0431]. 31a

**Clarke, J. J.** Protozoa and Disease. Part I. London (Baillière, Tindall, & Cox), 1903, (XIV + 177, 91 figs. in text). 8vo. [Review], Lancet, London, 1903, 2, (891-892). [0419 0403 0060]. 32

**Cohnheim, Paul.** Ueber Infusorien im Magen und im Darmkanal des Menschen und ihre klinische Bedeutung.

Vortrag. D. med. Wochenschr. Berlin, 29, 1903, (206-208, 230-232, 245-248). [0419]. 33

Crawley, Howard. List of the polycystid gregarines of the United States [with bibliography]. Philadelphia, Pa., Proc. Acad. Nat. Sci., 56, 1903, (41-58, with pl.). [0419 0427 gf 0431]. 34

———. The polycystid gregarines of the United States. Second contribution [with bibliography]. From Philadelphia, Pa., Proc. Nat. Sci., October, 1903, (632-644, with pl.). Separate. 25.5 cm. [0427 gf 0431]. 34A

———. *Nosema geophili*, sp. n., a myxo-sporidian parasite of *Geophilus*. Philadelphia, Pa., Proc. Acad. Nat. Sci., 35, 1903, (337-338). Separate. 25.6 cm. [Abstract], London; J. R. Microsc. Soc., 1903, (618). [0219 0431 3431]. 35

Grossman, R. W. v. Weed, C. M.

Dangeard, P.-A. Contribution à l'étude des Diplozoaires. Paris, C.-R. Acad. sci., 136, 1903, (769-771). [0407 0431]. 37

Daniels, C. W. v. Manson, P.

Dionisi, Antonio]. Die Malaria einiger Fledermausarten. Unters. Natk., Giessen, 17, 1901, (281-337, mit 2 Taf.). [0403 0419 0431]. 38

Doflein, Franz] und Prowasek, S. von. Die pathogenen Protozoen (mit Ausnahme der Hämesporidien). [In: Handbuch der pathogenen Mikroorganismen. Bd 1]. Jena, 1903, (865-1006). [0403 0419 0431]. 39

Donovan, C. The etiology of one of the heterogeneous fevers of India. Brit. Med. J., London, 1903, 2, (1401). [0060 0403 0419]. 40

Drago, U. *Coccidium scyllii* n. sp. Roma, Ric. Lab. anat. norm., 9, fasc. 1<sup>o</sup>, 1902, (89-94, con fig.). [0431]. 41

Drazeewski, W. Ueber vegetative Vorgänge im Kern und Plasma der Gregarinen des Regenwurmhodens. Arch. Protistenkunde, Jena, 3, 1903, (107-125, mit 2 Taf.). [0431 0415]. 42

Duboscq, O. v. Léger, L.

Dunbar, F. T. v. Pearl, R.

Durham, H. B. Report of the Yellow Fever Expedition to Para. Liverp. Sch. Trop. Medicine, Mem. vii. London (Longmans, Green & Co.), 1902, (79, 1 pl.). [0419 0427 hh]. 43

Dutton, J. E. Report of the Malaria Expedition to the Gambia, 1902. Liverp. Sch. Trop. Medicine, Mem. x. London (Longmans, Green & Co.), 1903, (46, 5 pls.). [Review], Nature, London, 68, 1903, (429). [0419 0060 0403 0020]. 44

——— and Todd, T. L. Preliminary account of the Investigations of the Liverpool Expedition to Senegambia (1902). Brit. Med. J., London, 1903, 1, (301-305). [0419 0415 0403]. 45

——— First Report of the Trypanosomiasis Expedition to Senegambia (1902) of the Liverpool School of Tropical Medicine and Medical Parasitology. London (Longmans, Green & Co. for the University Press of Liverpool), 1903, (504, vii, 5 pls. and numerous charts). 4to. [Review], Lancet, London, 1903, 2, (1727-1728). [0407 0419 0403 0020 0060 0431]. 46

——— v. Annett, H. E.

Elliot, T. H. v. Annett, H. E.

Enriques, P. Ricerche osmotiche sugli Infusori. Roma, Rend. Acc. Lincei, (Ser. 5), 11, 1902, (340-347). [0411 0431]. 47

——— Ricerche osmotiche sui Protozoi delle infusioni. Roma, Rend. Acc. Lincei, (Ser. 5), 11, 1902, (392-397). [0403 0411 0431]. 48

——— Adattamento degli Infusori marini alla vita nell'acqua dolce. Mon. zool. ital., Firenze, 13, 1902, (Supplemento), (49-59). [0403 0411 0431]. 49

Farmer, J. B. The structure of animal and vegetable cells. Section H. in Lankester's Treatise on Zoology. [One or two references to Protozoa.] Pt. I, ii, 1903, (1-46, 20 text-figs.). [Reviews], Nature, London, 68, 1903, (618); Irish Nat., Dublin, 12, 1903, (242-243). [0403 0407]. 50

Feinberg, Ludwig]. Ueber das Gewebe und die Ursache der Krebsgeschwülste. D. med. Wochenschr., Berlin, 29, 1903, (67-70). [0407 0431]. 51

——— Das Gewebe und die Ursache der Krebsgeschwülste. Unter Berücksichtigung des Baues der einzelnen thierischen Organismen. Berlin, (A. Hirschwald), 1903, (VI + 231, mit 4 Taf.). 25 cm. 10 M. [0407 0431]. 52



- Ferret, P.** Observations relatives au développement de la cuticule chez le *Sarcocystis tenella*. Arch. anat. microsc., Paris, **6**, 1903, (88-98, av. pl.). [0407 0415]. 53
- Fofá, [A.].** Sui *Citoryetes vaccine*. Mon. zool. ital., Firenze, **13**, 1902, (Supplemento), (34). [0403 0431]. 54
- Forel, F. A.** Le Léman. Monographie limnologique. Vol. III, pt. 1. Lausanne (F. Rouge), 1902, (411, text-figs. 167-227). [Review], Nature, London, **67**, (411-412). [0027 di 0427 di 0030 5427 di]. 55
- Fowler, (G. H.)** On *Planktonetta atlantica* Borgert. Q. J. Microsc. Sci., London, **47**, 1903, (133-143, pls. 11, 12). [0407 0431]. 56
- Fuhrmann, O.** Myxosporidies des corégones du lac de Neuchâtel. Arch. Sci. Phys., Genève, (sér. 4), **14**, 1902, (172-173). [0419 0427 di 0431 5419]. 57
- Galli-Valerio, Bruno.** Notes de parasitologie. Centralbl. Bakt., Jena, Abt. 1, **35**, Originale, 1903, (81-91). [0219 0403 0419 0431 1231 1219 1431 1419 4219]. 58
- Gillot.** Coloration des hématozoaires. Paris, C.-R. soc. biol., **55**, 1903, (244). [0407 0431]. 59
- Gineste, v. Kunstler, J.**
- Goldberger, Hugo.** Die Wirkung von anorganischen Substanzen auf Protisten. Ein Beitrag zur Biochemie des Protoplasmas. Zs. Biol., München, **43**, 1903, (503-581). [0411]. 60
- Gotschlich, Emil.** Ueber Protozoen-Befunde (*Apiosoma*) im Blute von Flecktyphuskranken. Vorl. Mitt. D. med. Wochenschr., Berlin, **29**, 1903, (329-331). [0419 0431]. 61
- Grassi, Battista.** Die Malaria-Studien eines Zoologen. Nachtrag zur 2. verm. Aufl. Jena (G. Fischer), 1903, (19). 31 cm. [0419 0403 0431]. 62
- Greeley, Arthur W[hite].** The artificial production of spores in *Monas* by a reduction of temperature. Chicago, Ill., Dec. Pub. Univ. Chic., (Ser. 1), **10**, 1093, ([71]-77, with text fig.). [0211 0411 0431]. 63
- Reactions of *Paramoecia* and other protozoa to chemical and electrical stimuli. Science, New York, N.Y., (N. Ser.), **17**, 1903, (980-982). [0411 0431]. 64
- Greig, E. D. r. Bruce, D.**
- Grobbe, [Karl].** Ueber die systematische Gruppierung der Amöben und Foraminiferen. Verh. Ges. D. Natf., Leipzig, **74**, (1902), II, 1, 1903, (151-152). [0431]. 65
- Gulart, J.** Sur un nouvel infusoire parasite de l'homme. Paris, C.-R. soc. biol., **55**, 1903, (245-246). [0419 0431]. 66
- Parasitologie pratique. Les parasites de l'intestin et leur recherche dans les matières fécales. Bul. sci. pharm., Paris, **6**, 1902, (152-157, 109-208, av. fig.). [0419 1219 4219]. 67
- Hamburger, Clara.** Beiträge zur Kenntnis von *Trachelius orum*. Arch. Protistenkunde, Jena, **2**, 1903, (445-474, mit 2 Taf.). [0431 0407]. 68
- Hanna, W.** *Trypanosoma* in birds in India. Q. J. Microsc. Sci., London, **47**, 1903, (433-438, pl. 32). [0419 0403]. 69
- Harris, H. F.** A modification of the Romanowsky stain. Centralbl. Bakt., Jena, Abt. 1, **34**, Originale, 1903, (188-191). [0090]. 70
- Hartmann, Max.** Die Fortpflanzungsweisen der Organismen, erläutert an Protozoen, Volvocineen und Dicyemiden (zugleich Mitteilung über den Generationswechsel der Dicyemiden). Hab.-Schr., Giessen, Leipzig (G. Thieme), 1903, (43). 23 cm. [1215 1231 0415]. 71
- Herrmann, A.** Zweiter Beitrag zur Kenntniss des Vorkommens von Foraminiferen im Tertiär des Unter-Elsass. Strassburg, Mitt. geol. Landesanst., **5**, 1903, (263-273). [0403 0431]. 72
- Dritter Beitrag zur Kenntniss des Vorkommens von Foraminiferen im Tertiär der Gegend von Pechelbronn, Lobsann, Sulz u/Wald und Gunstett im Unter-Elsass. Strassburg, Mitt. geol. Landesanst., **5**, 1903, (323-341). [0431]. 73
- Hickson, S. J.** The Infusoria or Corticata Heterokaryota. Section I., in Lankester's Treatise on Zoology, pt. I, ii, (361-420, 97 text-figs.). [Reviews] Nature, London, **68**, 1903, (618); Irish Nat., Dublin, **12**, 1903, (242-243). [0403 0431]. 74
- Holland, R. r. Newton, R. B.**

**Holmes, M. W.** Foraminifera from the Gault at Merstham. Croydon, Proc. Microsc. Nat. Hist. Cl., 1903, (34-40). [0427 de 0431]. 75

**Holmes, S. J.** Phototaxis in *Volvox*. Wood's Holl, Mass., Mar. Biol. Lab. Bull., 4, 1903, (319-326); [abstract], London, J. R. Microsc. Soc., 1903, (7-30). [0211 0419 0431]. 76

**Immermann, Ferdinand.** Ueber Fremdkörperskelette bei Aulacanthiden. Zool. Anz., Leipzig, 27, 1903, (70-76). [0407]. 77

**Issel, Raffaele.** Ancistridi del Golfo di Napoli. Studio monografico sopra una nuova famiglia di Cigliati, commensali di molluschi marini. Mitt. zool. Stat. Neapel, Berlin, 16, 1903, (63-108, mit 3 Taf.). [0431 0419 2219]. 78

**Jaquemot, Marcel.** Sur la systématique des Coccidies des Céphalopodes. Arch. Protistenkunde, Jena, 2, 1903, (190-194). [0431]. 79

**Jennings, H[erbert] S[pencer].** Studies on reaction to stimuli in unicellular organisms. IX. On the behavior of fixed infusoria (*Stentor* and *Vorticella*), with special reference to the modifiability of Protozoan reactions [with bibliography]. [Contributions from the Zoological laboratory of the University of Michigan, No. 57], in Amer. J. Physiol., Boston, Mass., 8, 1902, (23-60). [0411]. 80

**Johnson, Herbert P.** A new sporozoan parasite of *Anopheles*. J. Med. Res., Boston, Mass., 7, 1902, (213-219, with pl.). [0419 0431 4231]. 81

**Jukes-Brown, A. J.** The Cretaceous Rocks of Britain. Vol. II. The Lower and Middle Chalk of England. Mem. geol. Surv. U. K., London, 1903, (xiii + 568, 8 pls., 87 text-figs.). [0427 de 0627 de 2027 de 2227 de]. 82

**Kempner, W. v.** Rabinowitsch.

**Klimenko, W.** Beitrag zur Pathologie des *Balantidium* [*Paramoecium*] coli. Beitr. path. Anat., Jena, 33, 1903, (281-301, mit 2 Taf.). [0431 0419]. 83

**Kossel, H[ermann], Schütz, [Johann Wilhelm], Weber, A[ugust], Miesner, [Hermann].** Ueber die Hämoglobinnurie der Rinder in Deutschland. Berlin, Arb. Gesundheitsamt, 20, 1903, (1-77, mit 3 Taf.). [0419 0431 3031]. 84

**Kunstler, J.** Sur la bouche des protozoaires. Arch. anat. microsc., Paris, 6, 1903, (61-74). [0407]. 85

— et **Gineste, Ch.** Simple remarque sur la constitution du *Balantidium entozoon*. Paris, C.-R. soc. biol., 55, 1903, (340). [0411]. 86

— — — — — Étude de la structure du noyau des Ciliés. Bordeaux, Actes soc. linn., 58, 1903, (Proc.-verb. CLXXI-CLXXIV, av. fig.). [0407]. 87

**Kuwano, [Hisato].** *Trypanosoma* parasitic in *Triton pyrrhogaster*. (Japanese.) Dobuta. Z., Tokyo, 15, 1903, (297). [0419]. 88

**Laveran, A.** Sur deux Hippobosques du Transvaal susceptibles de propager *Trypanosoma theileri*. Paris, C.-R. soc. biol., 55, 1903, (242-243). [4219 4227 fg 4231 0419 0431]. 89

— — — — — Procédés de coloration des Protozoaires parasites du sang. Paris, C.-R. soc. biol., 55, 1903, (305-306). [0403 0419]. 90

— et **Mesnil, F.** Le Nagana, le Surra et le Cadéras constituent trois entités morbides distinctes. Paris, C.-R. Acad. sci., 136, 1903, (1529-1532). [0419 0431]. 91

— — — — — Sur un Protozoaire nouveau (*Piroplasma domovani* Lav. et Mesn.), parasite d'une fièvre de l'Inde. Paris, C.-R. Acad. sci., 137, 1903, (957-961). [0419 0431]. 92

**Ledoux-Lebard.** Action du sérum sanguin sur les Paramécies. Ann. Inst. Pasteur, Paris, 16, 1902, (510-521). [0411]. 93

— — — — — Action de la lumière sur la toxicité de l'éosine et de quelques autres substances pour les Paramécies. Ann. Inst. Pasteur, Paris, 16, 1902, (587-594). [0411]. 94

**Léger, Louis.** Sporozoaire parasite des moules et autres Lamellibranches comestibles. Paris, C.-R. Acad. sci., 137, 1903, (1003-1005). [0419 0431 2219]. 95

— — — — — Sur quelques Cercomonades nouvelles ou peu connues parasites de l'intestin des insectes. (Note préliminaire.) Arch. Protistenkunde, Jena, 2, 1903, (180-189). [0431 0419]. 96

— et **Duboscq, O.** Les grégaires et l'épithélium intestinal chez

les Trachéates. Arch. parasit., Paris, **6**, 1902, (377-473, av. fig. et 5 pl.). [0419 0431 2419 3419]. 97

**Leishman, W. B.** On the possibility of the occurrence of Trypanosomiasis in India. Brit. Med. J., London, **1903**, **1**, (1252-1254, 2 text. figs.). [0419 0403 0427ef 0060]. 98

**Lemmermann, E[rnst].** *Flagellatae*. Chlorophyceae, Coccosphaerales und Silicoflagellatae. [In: Nordisches Plankton. Lfg 2.] Kiel u. Leipzig, 1903, (XXI 1-XXI 40). [0431]. 99

**Lindner, G[ustav].** Regelmässiger Befund spezifischer Monaden in den Miescher'schen Schläuchen. Natw. Wochenschr., Jena, **18**, 1903, (315-316). [0431]. 100

**Lingard, Alfred.** The giant *Trypanosoma* discovered in the blood of bovines. Centralbl. Bakt., Jena, Abt. I, **35**, Originale, 1903, (234-238, mit 1 Taf.). [0403 0431]. 101

**Linstow, [Otto] von.** Parasiten, meistens Helminthen, aus Siam. Arch. mikr. Anat., Bonn, **62**, 1903, (108-121, mit 1 Taf.). [0419 0431 0427 ee 1227 ee 1231 1427 ee 1431]. 102

**Lister, J. J.** The Foraminifera. Section I in Lankester's Treatise on Zoology, Pt. I, ii, (47-149, 59 text-figs.). [Reviews]. Nature, London, **68**, 1903, (618); Irish Nat., Dublin, **12**, 1903, (242-243). [0403]. 103

**Le Bianco, Salvatore.** Le pesche abissali eseguite da F. A. Krupp col yacht Puritan nelle adiacenze di Capri ed in altre località del Mediterraneo. Mitt. zool. stat. Neapel, Berlin, **16**, 1903, (109-279, mit 3 Taf.). [0431 1631 2231 2631 0227 dm 0219 0231]. 104

**Löwit, M[oriz].** Ueber färberische Differenzen zwischen der Mastzellen-granulation und der *Haemamoeba leucemiae magna*. Beitr. path. Anat., Jena, **33**, 1903, (113-122, mit 1 Taf.). 0090 0411 0431]. 105

**Lohmann, H[ans].** Neue Untersuchungen über den Reichthum des Meeres an Plankton und über die Brauchbarkeit der verschiedenen Fangmethoden. Zugleich auch ein Beitrag zur Kenntnis des Mittelmeerauftriebs. Wiss. Meeresunters., Kiel, (N.F.), **7**, Abt. Kiel, 1903, (1-87, mit 4 Taf.). [0219 0227 dm 1431 5007]. 106

**Loisel, Gustave.** Expériences sur la conjugaison des Infusoires. Paris, C.-R. soc. biol., **55**, 1903, (53-55). [0415]. 107

——— Sur les causes de la sénescence chez les Protozoaires. Paris, C.-R. soc. biol., **55**, 1903, (55-57). [0411]. 108

——— Sur la sénescence et sur la conjugaison des Protozoaires. [Expériences et théories nouvelles.] Zool. Anz., Leipzig, **26**, 1903, (484-495); [abstract], London, J. R. Microsc. Soc., **1903**, (503). [0411 0415]. 109

**Lo Monaco, D[om.] und Panichi, L.** Die Wirkung der antiperiodischen Heilmittel auf den Malaria-parasiten. Unterz. Natk., (Giessen), **17**, 1901, (264-280). [0431 0419]. 110

**Lühe, M[ax].** Die Coccidien-Literatur der letzten 4 Jahre. Zusammenfassende Besprechung. Zool. Centralbl., Leipzig, **10**, 1903, (617-661); [abstract], London, J. R. Microsc. Soc., **1903**, (730). [0431]. 111

**Lutz, Adolph und Splendore, Alfonso.** Ueber Pebrine und verwandte Mikrosporidien. Ein Beitrag zur Kenntnis der brasilianischen Sporozoen. Erste Mitteilung. Centralbl. Bakt., Jena, Abt. I, **33**, Originale, 1903, (150-157). [0431 4419]. 112

**Magnitskij, Roman Sergëevič.** *Chilodon notamoebos* n. sp. (Russ.). Moskva, Dnev. Zool. Otd. Imp. Obsc. lib. jest., **III**, 5, 1903, (25-27, mit Taf.). 35 cm. [0407 0419 0423 0431]. 112a

**Maier, Hermann Nicolaus.** Ueber den feineren Bau der Wimperapparate der Infusorien. Arch. Protistenkunde. Jena, **2**, 1903, (73-179, mit 2 Taf.). [0407]. 113

**Manson, P.** Trypanosomiasis on the Congo. Brit. Med. J., London, **1903**, **1**, (720-721); [abstract], London, J. R. Microsc. Soc., **1903**, (307). [0419 0403 0427 fd 0060]. 114

——— Tropical Diseases. A Manual of the Diseases of Warm Climates. New and Revised Edition. London (Cassell & Co.), 1903, (xxiv + 756, 2 pls. and 130 text-figs.). [Contains a general account of malarial and other Protozoan parasites.] 8vo. [0060 0403 0419]. 115

- Manson, P. and Daniels, C. W.** Remarks on a case of Trypanosomiasis. Brit. Med. J., London, 1903, 1, (1249-1252, 2 text-figs.). [0419]. 116
- Marotel, G. r. Moussu, G.**
- Martini, Erich.** Ueber die Entstehung der Neuerkrankungen an Malaria während des Frühjahres und Sommers unserer Breiten. Zs. Hyg., Leipzig, 41, 1902, (147-152, mit 2 Taf.). [0431]. 117
- Ueber die Entwicklung der Tsetseparasiten in Säugethieren. Zs. Hyg., Leipzig, 42, 1903, (341-350, mit 1 Taf.). [0431 0419]. 118
- Matthews, C. G. and Oswell, B. L.** The microscopic life of the river Trent. Burton-on-Trent, Trans. Nat. Hist. Soc., 5, 1, 1903, (31-34). [0403 0427 de 0419]. 119
- Maxwell Adams, A.** Trypanosomiasis and its cause. Brit. Med. J., London, 1903, 1, (721-722); [abstract], London, J. R. Microsc. Soc., 1903, (307). [0419 0403]. 120
- Mesnil, F. v. Laveran, A.**
- Metchnikov, S. I.** Ueber die intracelluläre Verdauung. St. Petersburg, Bull. Ac. Sc., (5 F.) 19, No. 3, 1903, (187-193). [0411]. 121
- Ueber die Fähigkeit der Infusorien (*Paramoecium*) ihre Nahrung zu wählen. (Russ.) St. Petersburg, Bull. labor. biol., V, 4, 1902, (23-26). [0419 0431]. 122
- Metzner, Rud.** Untersuchungen an *Coccidium cuniculi*. Arch. Protistenkunde, Jena, 2, 1903, (13-72, mit 1 Taf.). [0415 0431 6031]. 123
- Miesner, [Hermann] v. Kossel, H.**
- Millet, W. F.** Report on the recent Foraminifera of the Malay Archipelago, collected by Mr. A. Durrand, F.R.M.S. Part XIV. London, J. R. Microsc. Soc., 1903, (253-275, pl. 5). [0427 de 0431]. 124
- Minchin, E. A.** The Sporozoa. Section K in Lankester's Treatise on Zoology, pt. I. ii, (150-360, 127 text-figs.). [Reviews], Nature, London, 68, 1903, (618); Irish Nat., Dublin, 12, 1903, (242-243). [0419 0403]. 125
- Minkewitch, R. K.** Ueber eine neue Art *Codenella* im Plankton des Asowschen und Aralischen Meeres. (Russ.) Taschkent, Izv. Turk. Otd. Geogr. Obsc., III, livr. 3, 1903, (43-46). [0427 0431]. 126
- Mitrofanov, P. I.** Der Kernapparat der Paramoecien. Arb. a. d. zootom. Labor. d. Univ. Warschau No. XXXI. (Russ.) Varsava, Izv. Univ., 1903, (48, mit 31 fig.). [0407 0415]. 127
- Miyajima, Mikinosuke.** On the malaria parasite *Halteridium* of sparrows. (Japanese) Dobuts. Z., Tokyo, 15, 1903, (131-151). [0403 0407 0415 0419 0431]. 128
- Molisch, Hans.** Amöben als Parasiten in *Volvox*. Berlin, Ber. D. bot. Ges., 21, 1903, (20-23, mit 1 Taf.). [0431 0419]. 129
- Moroff, Theodor.** Beitrag zur Kenntnis einiger Flagellaten. Arch. Protistenkunde, Jena, 3, 1903, (69-106, mit 2 Taf.); [abstract], London, J. R. Microsc. Soc., 1903, (46). [0431]. 130
- Moussu, G. et Marotel, G.** La coccidiose du mouton et son parasite [*Coccidium faurei*, n. sp.]. Arch. parasit., Paris, 6, 1902, (82-98, av. 10 fig.). [0431 6019]. 131
- Mouton, Henri.** Recherches sur la digestion chez les Amibes et sur leur diastase intracellulaire. Ann. Inst. Pasteur, Paris, 16, 1902, (457-509, av. 1 pl.). [0411]. 132
- Muratet, [L.] v. Sabrazès, [J.]**
- Nabarro, D. v. Bruce, D.**
- Negri, A.** Beitrag zum Studium der Aetiologie der Tollwuth. Zs. Hyg., Leipzig, 43, (507-528, mit 2 Taf.). [0423 0431]. 133
- Nereisheimer, Eugen Robert.** Ueber die Höhe histologischer Differenzierung bei heterotrichen Ciliaten. Arch. Protistenkunde, Jena 2, 1903, (305-324, mit 1 Taf.). Diss. München. Jena (G. Fischer), 1903, (22). 23 cm. [0407 0411 0431]. 135
- Nishikawa, Tōkichi.** Further observations on the "red current," due to *Gonyaulax polygramma*. (Japanese) Dobuts. Z., Tokyo, 15, 1903, (347-353). [0419 0431]. 137
- Okolovité, I. M.** Die Erscheinungen der Reizbarkeit bei den niederen Thieren. (Russ.) Rec. méd. vétérin., Varsava, 7, 1902, (108-135). [0411]. 137A
- Oswell, B. L. v. Matthews, C. G.**

H. 1. Zool. Jahrb., Jena, Suppl. 6, 1903, (1-214, mit 13 Taf.). 24 cm. [0030].

# i AUSTRALASIA.

**Semon, Richard.** Zoologische Forschungsreisen in Australien und dem malayischen Archipel. Mit Unterstützung des Herrn Dr. Paul von Ritter ausgeführt i. d. J. 1891-1893. Bd 5: Wirbellose Tiere, Lfg 6. Jena, Denkschr. med. Ges., 8, 1903, (643-778, I-VI, mit 16 Taf.).

# ia NEW GUINEA WITH ISLANDS FROM WALLACE'S LINE.

Ergebnisse einer zoologischen Forschungsreise in den Molukken und Borneo, im Auftrage der Senckenbergischen naturforschenden Gesellschaft ausgeführt von Dr. Willy Kükenthal. Tl 2: Wissenschaftl. Reiseergebnisse, Bd 3, H. 4. Frankfurt a. M., Abh. Senckenb. Ges., 25, 1903, (5 Bl., S. 932-988, m. 1 Taf.).

**Davydov, K. N.** Rapport préliminaire sur un voyage à l'île de Java et aux autres îles de l'Archipel Malais. (Russ.) St. Peterburg, Bull. Ac. Sc., (5 Sér.), 18, No. 1, 1903, (25-32).

**Kükenthal, Willy.** Schlusswort [zu: Ergebnisse einer zool. Forschungsreise in den Molukken u. Borneo]. Frankfurt a. M., Abh. Senckenb. Ges., 25, 1903, (969-988).

**Willey, A.** Zoological results based on material from New Britain, New Guinea, Loyalty Islands and elsewhere, collected during the years 1895, 1896 & 1897 by Arthur Willey. Part VI. Cambridge, 1902. 4to. [Review], Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1902, (133-135).

# ic AUSTRALIA AS A WHOLE.

**Hall, T. S.** Whence came our Australian animals? Vict. Nat., Melbourne, 20, 1903, (39-41).

**Hedley, C.** Effect of the Bassian Isthmus upon the existing marine fauna: a study in ancient geography. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, 28, 1903, (876-883, with 1 map).

# k ARCTIC.

**Fauna Arctica.** Eine Zusammenstellung der arktischen Tierformen mit besonderer Berücksichtigung des Spitz-

bergen-Gebietes auf Grund der Ergebnisse der deutschen Expedition in das nördliche Eismeer im Jahre 1898. Unter Mitwirkung zahlreicher Fachgenossen hrag. v. Fritz Römer und Fritz Schaudinn. Bd. 3, Lfg 1; Lfg 2; Hartmeyer, Ascidien. Jena (G. Fischer), 1903, (1-90, mit 3 Taf.; 91-412, mit 11 Taf.). 36 cm.

**Graff, L. v.** [Aleksandrowsk] . . . Zoologische Studienreise . . . (Graz, Mitt. Natw. Ver. Steierm., 1902, 1903, (357-378).

**Knipowitsch, N.** Zur Kenntnis der physikalischen Geographie des Eismeres. Helsingfors, Comptes rendus du Congrès des Naturalistes et Médecins du Nord tenu à Helsingfors du 7 au 12 juillet 1902, 1903, (42-48).

# kd ISLANDS NORTH OF EUROPE AND ASIA.

**Birula, A. A.** Compte-rendu du zoologue de l'expédition sur les travaux scientifiques en été 1902 pendant sa vie sur l'île Nouvelle-Sibérie. Rapports sur les travaux de l'expédition Polaire Russe dirigée par le baron Toll. V. (Russ.) St. Peterburg, Bull. Ac. Sc., (5 Sér.), 18, No. 3, 1903, (91-94).

# l ATLANTIC.

**Cleve, P[er] T[heodor].** Additional notes on the seasonal distribution of Atlantic Plankton Organisms [especially as concerns the southern hemisphere]. Göteborg, Vet. Handl., (Ser. 4), 4, 1901, (1-51).

# la NORTH ATLANTIC OCEAN.

**Cleve, P[er] T[heodor].** The Plankton of the North Sea and the Skagerrak in 1900 (1902). Stockholm, Vet.-Ak. Handl., 35, No. 7, 1901-2, (49).

**Lohmann, H[ans].** Untersuchungen über die Tier- und Pflanzenwelt sowie über die Bodensedimente des nordatlantischen Ozeans zwischen dem 38. und 50. Grade nördl. Breite. Berlin, Sitzber. Ak. Wiss., 1903, (560-583, mit 1 Taf.).

**Redeke, H[einrich] C[arl] und Breemen, P. J. van.** Plankton und Bodentiere in der Nordsee gesammelt August 1901 . . . (Holländisch) Helder,

Tijdschr. Ned. Dierk. Ver., (Ser. 2), 8, [1903], (118-147).

**ib AZORES; CANARIES; MADEIRA; CAPE VERDE.**

**Scharff, R. F.** Some remarks on the Atlantis problem. Dublin, Proc. R. Irish Acad., 24, 1903, (268-302).

**lc SOUTH ATLANTIC AND ISLANDS.**

**Vanhöffen, E[rnst].** Biologische Beobachtungen [auf der deutschen Südpolar-Expedition]. Berlin, Veröff. Inst. Meeresk., H. 2, 1902, (39-45).

**m INDIAN OCEAN.**

**Cleve, P[er] T[eodor].** Plankton from the Indian Ocean and the Malay Archipelago. (1901.) Stockholm. Vet.-Ak. Handl., 35, No. 5, 1901-2, (58, with 8 pls.).

**ma OCEAN AND ISLANDS N. OF EQUATOR.**

**Gardiner, J. Stanley.** The fauna and geography of the Maldiva and Laccadive Archipelagoes. Vol. i, Parts 2 and 3. Vol. ii, Parts 1-4. Cambridge, 1902-1903. See numerous articles in the special Records.

**Kloss, C. B.** In the Andamans and Nicobars. The narrative of a cruise in the schooner "Terrapin," with notices of the islands, their fauna, ethnology, etc. [The zoology is but slight, there are lists of mammals and birds, pp. 320-331, with some comments thereon.] London, 1903, (xvi + 373, with illustr.). 8vo.

**n PACIFIC.**

**Agassiz, Alexander.** Preliminary report and list of stations. With remarks on the deep-sea deposits by Sir John Murray. (Reports on the scientific results of the expedition to the tropical Pacific, in charge of Alexander Agassiz, by the U. S. Fish Commission steamer "Albatross" from August, 1899, to March 1900. Commander Jefferson F. Maer, U.S.N., commanding. 1.) Cambridge, Mass., Mem.

Mus. Comp. Zool. Harvard Coll., 26, 1902, (21 + 1-114, with 21 charts). Separate 28.8 cm.

**ne MARSHALL ISLANDS.**

**Schnee.** Einige Bemerkungen über die Tierwelt der Litoralregion von Jaluit. Zs. Natw., Stuttgart, 75, (1902), 1903, (373-384).

**—————** Darwinistische Studien auf einer Korallen-Insel. (Gemeinverst. Darwinist. Vorträge u. Abh., H. 9.) Odenkirchen (W. Breitenbach), 1903, (46). 23 cm. 1 M.

**nf FIJI ISLANDS.**

**Guppy, H. B.** Observations of a Naturalist in the Pacific between 1896 and 1899. Vol. 1. Vanna Levu, Fiji, a description of its leading physical and geological characters. London, 1903, (xx + 392, with 1 pl., 2 maps). 8vo.

**o ANTARCTIC.**

**Vanhöffen, E[rnst].** Biologische Beobachtungen [auf der deutschen Südpolar-Expedition]. Berlin, Veröff. Inst. Meeresk., H. 2, 1902, (39-45).

**—————** Biologischer Bericht [der deutschen Südpolar-Expedition]. Berlin, Veröff. Inst. Meeresk., H. 5, 1903, (143-154).

**oa ANTARCTIC CONTINENT.**

**Woodward, H.** Address. [Southern Continent and Fauna.] Norwich, Trans. Nat. Soc., 7, 1903, (429-444).

**0231 TAXONOMY OR CLASSIFICATION IN GENERAL.**

Das Tierreich.  
lung und Kenn-  
Tierformen. B  
Gesellsch. im  
Akad. d. Wiss  
v. Franz Eilma  
Berlin (R. Fr  
(XXXI + 255;  
12,60 M.; 8,10 M.

- Smith, G.** *Actinosphaerium eichhorni*. A biometrical study in the mass relations of nucleus and cytoplasm. *Biometrika*, Cambridge, **2**, 1903, (241-254, pls. 1-4, 4 tables). [0207 0223 0407 0431]. 183
- Solger, F.** Woher stammen die Coccolithen des Tiefseeschlammes? *Natw. Wochenschr.*, Jena, **18**, 1903, (529-533). [0431]. 184
- Splendore, Alfonso v. Lutz, A.**
- Statkevich, P. G.** Beitrag zur Methodik der biologischen Untersuchungen von Protisten. Neue Methoden der Züchtung von Protisten sowie der Beobachtung ihrer Bewegungen. (Russ.) *Moskva, Dnevn. Zool. Otd. Imp. Obsc. Irb. jest.*, **III**, 5, 1903, (42-51). 35 cm. [0411 0423 0403]. 184a
- Stebbins, James H., jun.** On the occurrence of parasites in the blood of the *Damonias vesalii* turtle. *J. Appl. Microsc.*, Rochester, N.Y., **6**, 1903, (2164-2168). [0419 5631]. 185
- Stampell, W[alter].** Beiträge zur Kenntnis der Gattung *Polycaryum*. *Arch. Protistenkunde*, Jena, **2**, 1903, (349-363, mit 1 Taf.). [0431 2631]. 186
- Ueber die Fortpflanzung der Protozoen. Zusammenfassende Uebersicht. *Greifswald, Mitt. natw. Ver.*, **34**, (1902), 1903, (89-97). [0415]. 187
- Stephens, J. W. and Christophers, S. R.** Note on the changes in the red cell produced by the malignant tertian parasite. *Brit. Med. J.*, London, **1903**, **1**, (730). [0407]. 188
- The practical study of malaria and other blood parasites. London (Longmans, Green & Co.), 1903, (vi + 378 + xxxv, 2 pls., 93 text-figs.). 8vo. [0419 0060 0403]. 189
- Steuer, Adolf.** Ueber das Vorkommen von Coccolithophoriden im Golf von Triest. (Mitt. aus d. zool. Stat. Triest. No. 7.) *Zool. Anz.*, Leipzig, **27**, 1903, (129-131). [0427 dm 0431]. 190
- Ueber eine Euglenoide (*Eutreptia*) aus dem Canale grande von Triest. *Arch. Protistenkunde*, Jena, **3**, 1903, (126-137). [0431]. 191
- Stevens, Nettie Maria.** Further studies on the ciliate Infusoria, *Licnophora* and *Boveria*. *Arch. Protistenkunde*, Jena, **3**, 1903, (1-43, mit 6 Taf.). [0431 0415]. 192
- Strahl, Karl.** Ueber die Natur des Vorticellenstieles. *Za. wiss. Mikrosk.*, Leipzig, **20**, 1903, (189). [0431]. 193
- Taylor, L.** Second Progress Report of the Campaign against Mosquitoes in Sierra Leone. *Liverp. Sch. Trop. Medicine*, Mem 5, pt. 2. Liverpool (University Press) 1902, (13). [0419 0020 0060 0403]. 194
- Thompson, B.** The junction beds of the Upper Lias and Inferior Oolite in Northamptonshire. Pt. II: Stratigraphical and Palaeontological. *Northampton, J. Nat. Hist. Soc.*, **11**, 1903, (197-216, 235-244); **12**, 1903, (54-69). [0427 de 2227 de]. 195
- Thompson, I. C.** On the plankton of the Indian Ocean. London, Rep. Brit. Ass., **1902**, 1903, (643-644). [2619 0419]. 196
- Todd, J. L. v. Dutton, J. E.**
- Tyxxer, E. E.** Coccidium infection of the rabbit's liver. [With bibliography.] *J. Med. Res.*, Boston, Mass., **7**, 1902, (235-254, with pl.). [0419 0431]. 197
- Wallengren, Hans.** Zur Kenntnis der Galvanotaxis. [Forts.] *Za. allg. Physiol.*, Jena, **2**, 1903, (516-555). [0411 0431]. 198
- Watson, M.** A note on the parasites of a case of malignant malaria, with a discussion of the development of the crescent. *J. trop. Med.*, London, **6**, 1903, (221-223, 1 pl.). [0415 0419 0060 0403]. 199
- Weber, A[ugust] v. Kossel, H.**
- Weed, C. M. and Crossman, R. W.** A Laboratory Guide for Beginners in Zoology. London (Heath & Co.), 1903, (XXIV + 105); [Review], *Nature*, London, **68**, 1903, (319). [0030 0807 0803 0403 1803]. 200
- West, G. S.** Observations on freshwater Rhizopods, with some remarks on their classification. London, *J. Linn. Soc. Zool.*, **29**, 1903, (108-117, pl. 13). [0423 0427 0431]. 201
- Williamson, G. A.** The nomenclature of Malaria. *Brit. Med. J.*, London, **1903**, **1**, (823). [0403 0070]. 202
- Woodcock, H. M.** Report, in Report of the Committee on investigations made at the Marine Biological Laboratory,

Plymouth. London, Rep. Brit. Ass., 1902, (271-272). [1019 0419 2219]. 203

Woodward, H. Note on the occurrence of Protozoa geologically, in: The President's Address, Some Ideas on Life. London, J. R. Microsc. Soc., 1903, (142-157, text-figs. 35 and 36, 1 table). [0427]. 205

Wright, J. Foraminiferal, high-level Boulder Clay in the County of Dublin, and in Dumfriesshire and Ayrshire; with observations on the origin of Boulder Clays. Irish Nat., Dublin, 12, 1903, (173-180). [0427 de]. 206

— The micro-fauna of the Boulder Clay, with some remarks on the movement of glaciers. Belfast, Rep. Nat. Hist. Phil. Soc., 1903, (47-50). [0427 de]. 207

— The Foraminifera of the Boulder Clay of Knock Glen, Co. Down. Belfast, Rep. Nat. F. Cl., (Ser. 2), 5, 1903, (59-63). [0427 de]. 208

— Foraminiferal Boulder Clay from Woodburn, Carrickfergus. Belfast, Rep. Nat. F. Cl., (Ser. 2), 5, 1903, (109-114). [0427 de]. 209

Yatsu, [Naohide]. Two facts observed on *Amoeba*. (Japanese) Dobuts. Z., Tokyo, 15, 1903, (297-298). [0419]. 210

Zacharias, Otto. Biologische Charakteristik des Klinkerteiches zu Plön. Mit Anhang: Ueber die Infektion von *Synchaeta pectinata* Ehrenb. mit den parasitischen Schläuchen von *Ascosporidium blochmanni*. Plön, ForschBer. biol. Stat., 10, 1903, (201-222, mit 1 Taf.). [0227 de 0431]. 211

— Zur Kenntniss der niederen Flora und Fauna holsteinischer Moorsümpfe. Plön, ForschBer. biol. Stat., 10, 1903, (223-289, mit Taf.). [0431 1231 0231 0227 de]. 212

— Drei neue Panzerflagellaten des Süßwassers. Plön, ForschBer. biol. Stat., 10, 1903, (290-292). [0431]. 213

— Ergänzung zu meiner früheren Beschreibung der *Staurophrya elegans*. Plön, ForschBer. biol. Stat., 10, 1903, (312-314). [0431]. 214

Zernov, S. A. Ueber das Zooplankton des Aral-Sees, auf Grund der von L. N. Berg im Jahre 1900 gesammelten (s 2-9053)

Materialien. (Russ.) Taschent, Izv. Turk. Otd. Russ. Geogr. Obsč., 3, livr. III, 1903, (1-38). [0227 0427 1627 1631 2627 2031]. 215

Zorn, Ludwig. Beitrag zur Kenntnis der Amöben-Enteritis. Diss. München (Druck v. Kastner & Lossen), 1901, (32). 20 cm. [0419]. 216

## 0403 COMPREHENSIVE AND GENERAL WORKS.

### GENERAL.

Calkins, Gary N[athan]. Marine Protozoa from Wood's Holl [with bibliography]. Washington, D.C., Bull. U. S. Fish. Com., 21, (1901), 1902, (413-468, with text-fig.).

Enriques, P. Ricerche osmotiche sui Protozoi delle infusioni. Roma, Rend. Acc. Lincei, (Ser. 5), 11, 1902, (392-397).

— Adattamento degli Infusori marini alla vita nell' acqua dolce. Mon. zool. ital., Firenze, 13, 1902, (Supplement), (49-59).

Galli-Valerio, Bruno. Notes de parasitologie. Centralbl. Bakt., Jena, Abt. 1, 35, Originale, 1903, (81-91).

Herrmann, A. Zweiter Beitrag zur Kenntniss des Vorkommens von Foraminiferen im Tertiär des Unter-Elsass. Strassburg, Mitt. geol. Landesanst., 5, 1903, (263-273).

Matthews, C. G. and Oswell, B. L. The microscopic life of the river Trent. Burton-on-Trent, Trans. Nat. Hist. Soc., 5, 1, 1903, (31-34).

Prowasek, S. Beitrag zur Kenntnis der Regeneration und Biologie der Protozoen. Arch. Protistenkunde, Jena, 3, 1903, (44-59).

Statkevich, Pavel Grigorievich. Beitrag zur Methodik der biologischen Untersuchungen von Protisten. Neue Methoden der Züchtung von Protisten sowie der Beobachtung ihrer Bewegungen. (Russ.) Moskva, Dnevn. Zool. Otd. Imp. Obsč. Ijub. jest., III, 5, 1903, (42-51). 35 cm.

Weed, C. M. and Crossman, R. W. Protozoa in: A Laboratory Guide for Beginners in Zoology. London (Heath



& Co.), 1903, (XXIV + 105). [Review], Nature, London, **68**, 1903, (319).

**Williamson**, G. A. The nomenclature of malaria. Brit. Med. J., London, **1903**, 1, (823).

## TREATISES.

**Doflein**, F[rantz] und **Prowasek**, S. von. Die pathogenen Protozoen (mit Ausnahme der Hämosporidien). [In: Handbuch der pathogenen Mikroorganismen. Bd. 1.] Jena, 1903, (865-1006).

**Farmer**, J. B. The structure of animal and vegetable cells. Section H in Lankester's Treatise on Zoology. [One or two references to Protozoa.] Pt. I, ii, 1903, (1-46, 20 text-figs.). [Reviews], Nature, London, **68**, 1903, (618); Irish Nat., Dublin, **12**, 1903, (242, 243).

**Hickson**, S. J. The Infusoria or Corticata Heterokaryota. Section L in Lankester's Treatise on Zoology, pt. I, ii, (361-426, 97 text figs.). [Reviews], Nature, London, **68**, 1903, (618); Irish Nat., Dublin, **12**, 1903, (242-243).

**Lister**, J. J. The Foraminifera. Section I in Lankester's Treatise on Zoology, Pt. I, ii, (47-149, 59 text-figs.). [Reviews], Nature, London, **68**, 1903, (618); Irish Nat., Dublin, **12**, 1903, (242, 243).

**Minchin**, E. A. The Sporozoa. Section K in Lankester's Treatise on Zoology, Pt. I, ii, (150-360, 127 text-figs.). [Reviews], Nature, London, **68**, 1903, (618); Irish Nat., Dublin, **12**, 1903, (242, 243).

## TECHNIQUE.

**Koreck**, J. The technique of staining malaria parasites. [Transl.] J. Trop. Med., London, **6**, 1903, (196-197).

**Laveran**, A. Procédés de coloration des Protozoaires parasites du sang. Paris, C.-R. soc. biol., **55**, 1903, (305-306).

## ECONOMICS.

Jahresbericht über die Fortschritte in der Lehre von den pathogenen Mikroorganismen, umfassend Bakterien, Pilze und Protozoen. Unter Mitwirkung von Fachgenossen bearb. u. hrsg. v. P[aul]

von Baumgarten und F[erenz] Tangl. Jg 16 (1900), Abt. 2. Leipzig (S. Hirzel), 1902, (401-812, I-XII). 23 cm. 12 M. Jg. 17, 1901. *Ib.*, (XII + 1114). 23 cm. 32 M.

**Argutinsky**, P[etr, Fürst]. Ueber Malaria im europäischen Russland [ohne Finnland] Eine Skizze. Arch. Hyg., München, **47**, 1903, (317-326, mit 1 Kart.).

Beiträge zur Kenntnis der Morphologie und Biologie der Malaria-Parasiten. (Russ.) Arch. sc. biol., St. Petersburg, [russ. Ausg.], **10**, 1903, No. 1, (12-48, mit 1 Taf.).

Zur Kenntniss des Tropica-parasiten (*Plasmodium praecox* Gr. u. Fel.). Die Tüpfelung der Wirtszellen den Halbmonde. Centralbl. Bakt., Jena, Abt. 1, **34**, Originale, 1903, (144-149, mit 1 Taf.).

**Bosc**, F. J. Les épithéliomas parasitaires. La clavelée et l'épithélioma claveleux. Lc. (413-420, 517-526, 666-674, mit 3 Taf.).

**Boyce**, R., **Ross**, R. and **Sherrington**, C. S. Note on the discovery of the human Trypanosome. Nature, London, **67**, 1903, (56).

The history of the discovery of Trypanosomes in Man. Lancet, London, **1903**, 1, (509-513).

**Bruce**, D. Nomenclature of malaria; a suggestion. Lancet, London, **1903**, 1, (131, 132); Brit. Med. J., London, **1903**, 1, (15).

and **Nabarro**, D. Progress Report on sleeping sickness in Uganda. Rep. S. S. Comm. (Royal Soc.), **1**, (11-88, 10 pls.). [Abstract], Nature, London, **68**, (517).

and **Greig**, E. D. Further Report on sleeping sickness in Uganda. Lc. IV., (87, 4 pls., 2 maps, and 2 text-figs.). [Abstract], Lancet, London, **1903**, 2, (1730-1732).

**Castellani**, A. On the discovery of a species of *Trypanosoma* in the cerebrospinal fluid of cases of sleeping sickness. London, Proc. R. Soc., **11**, 1903, (501-508, 2 tables); Lancet, London, **1903**, 1, (1735-1736); [abstract], Nature, London, **68**, 1903, (116).

**Castellani, A.** Some observations on the morphology of the *Trypanosoma* found in sleeping sickness. Brit. Med. J., London, 1903, 1, (1431, 1432, 1 text-fig.).

Researches on the etiology of sleeping-sickness. J. trop. Med., London, 6, 1903, (167-171, 1 pl. and 2 text-figs.).

Presence of *Trypanosoma* in sleeping sickness. Rep. S. S. Comm. (Royal Society), 1, (1-10, 2 tables). [Identical with preceding.]

Adult forms and developmental forms of the *Trypanosoma* found in sleeping sickness. l.c. 2, (9-13, pls. 1 and 2).

Die Aetiologie der Schlafkrankheit der Neger. Centrabl. Bakt., Jena, Abt. 1, 35, Originale, 1903, (62-67, mit 1 Taf.).

**Christy, C.** Malaria: the mode of entry of the spore into the red blood-corpuscle. Brit. Med. J., London, 1903, 2, (645, 1 text-fig.).

**Clarke, J. J.** Protozoa and Disease. Part I. London (Baillière, Tindall & Cox), 1903, (xiv + 177, 91 figs. in text). 8vo. [Review], Lancet, London, 1903, 2, (891, 892).

**Donati, A[ntonio].** Die Malaria einiger Fledermausarten. Unters. Natk., Giessen, 17, 1901, (281-337, mit 2 Taf.).

**Doffein, F[ranz] und Prowasek, S. von.** Die pathogenen Protozoen (mit Ausnahme der Hämosporidien). [In: Handbuch der pathogenen Mikroorganismen. Bd. I.] Jena, 1903, (865-1006).

**Donovan, C.** The etiology of one of the heterogeneous fevers of India. Brit. Med. J., London, 1903, 2, (1401).

**Durham, H. B.** Report of the Yellow Fever Expedition to Para. Liverp. Sch. Trop. Medicine, Mem. VII. London (Longmans, Green & Co.), 1902, (79, 1 pl.). [Important remarks on *Lankesterella*.]

**Dutton, J. E.** Report of the Malaria Expedition to the Gambia, 1902, Liverp. Sch. Trop. Medicine, Mem. X. London (Longmans, Green & Co.), 1903, (46, 5 pls.). [Review], Nature, London, 68, 1903, (429).

(n 2-9053)

**Dutton, J. E. and Todd, J. L.** Preliminary account of the investigations of the Liverpool Expedition to Senegambia (1902). Brit. Med. J., London, 1903, 1, (304, 305).

First Report of the Trypanosomiasis Expedition to Senegambia (1902) of the Liverpool School of Tropical Medicine and Medical Parasitology. London (Longmans, Green & Co. for the University Press of Liverpool), 1903, (50 + VII, 5 pls. and numerous charts). 4to. [Review], Lancet, London, 1903, 2, (1727-1728).

**Foa, [A.].** Sui *Citriyctes vaccinae*. Mon. zool. ital., Firenze, 13, 1902, (supplemento) (34).

**Grassi, Battista.** Die Malaria-Studien eines Zoologen. Nachtrag zur 2. verm. Aufl. Jena (G. Fischer), 1903, (19). 31 cm.

**Hanna, W.** *Trypanosoma* in birds in India. Q. J. Microsc. Sci., London, 47, 1903, (433-438, pl. 32).

**Leishman, W. B.** On the possibility of the occurrence of Trypanosomiasis in India. Brit. Med. J., London, 1903, 1, (1252-1254, 2 text-figs.).

**Lingard, Alfred.** The giant *Trypanosoma* discovered in the blood of bovines. Centrabl. Bakt., Jena, Abt. 1, 35, Originale, 1903, (234-238, mit 1 Taf.).

**Manson, P.** Trypanosomiasis on the Congo. Brit. Med. J., London, 1903, 1, (720, 721); [abstract], London, J. R. Microsc. Soc., 1903, (307).

Tropical Diseases. A Manual of the Diseases of Warm Climates. New and Revised Edition. London (Cassell & Co.), 1903, (xxiv + 756, 2 pls. and 130 text-figs.). [Contains a general account of malarial and other Protozoan parasites.] 8vo.

**Maxwell-Adams, A.** Trypanosomiasis and its cause. Brit. Med. J., London, 1903, 1, (721-722); [abstract], London, J. R. Microsc. Soc., 1903, (307).

**Miyajima, Mikinosuke.** On the malaria parasite *Halteridium* of sparrows. (Japanese) Dobuts. Z., Tokyo, 15, 1903, (131-151).

**Panichi, L.** Sulla sede del parassita malarico nell'eritrocito dell'uomo. Archivio farmac., Roma, 1, 1902, (148-432).

**Plimmer, H. G.** The parasitic theory of cancer. Brit. Med. J., London, 1903, 2, (1511-1515).

**Prowazek, S.** Protozoenbericht für das Jahr 1889. Arch. Natg., Berlin, 62, Bd 2, H. 3, 1896. [1903], (259-290).

**Rabinowitsch, Lydia und Kempner, W.** Die Trypanosomen in der Menschen- und Tierpathologie, sowie vergleichende Trypanosomenuntersuchungen. Centrabl. Bakt., Jena, Abt. 1, 34, Originale, 1903, (804-822, mit 1 Taf.).

**Ross, R.** Report on Malaria at Iamalia and Suez. Liverp. Sch. Trop. Medicine, Mem. IX. London (Longmans, Green & Co.), 1903, (24).

**Sambon, L.** Sleeping-sickness in the light of recent knowledge. J. trop. Med., London, 6, 1903, (201-209, 2 text-figs.).

**Schüffner, Wilhelm.** Die Beziehungen der Malaria-Parasiten zu Mensch und Mücke an der Ostküste Sumatras. Ze. Hyg., Leipzig, 41, 1902, (89-122, mit 4 Taf.).

**Sievers, R.** Cas de malaria, traité par le bleu de méthylène. (Suédois) F. Läkars. Handl., Helsingfors, 43, 1902, (857-858).

**Silberstein, Moritz.** Beobachtungen über die Entstehung von jungen Malaria-Parasiten aus älteren. Centrabl. Bakt., Jena, Abt. 1, 34, Originale, 1903, (149-155, 225-241).

**Stephens, J. W. and Christophers, S. R.** The practical study of malaria and other blood parasites. London (Longmans, Green & Co.), 1903, (vi + 378 + xxxv, 2 pls., 93 text-figs.). 8vo.

**Taylor, L.** Second Progress Report of the Campaign against Mosquitoes in Sierra Leone. Liverp. Sch. Trop. Medicine, Mem. 5, pt. 2. Liverpool (University Press), 1902, (13).

**Watson, M.** A note on the parasites of a case of malignant malaria, with a discussion of the development of the crescent. J. trop. Med., London, 6, 1903, (221-223, 1 pl.).

## 0407 STRUCTURE.

**Aleksandrova, V. A. u. Istomina, N. A.** Beobachtungen an Infusorien (Wirkung des Salamandergiftes, einige Wirkungen

der Inductionsschläge). (Russ.) St. Petersburg, Trav. Soc. Nat., XXXIV, 1, 1903, (Protok. No. 4-5), (156-177), deutsches Rés., (159-160).

**Argutinskij, P. M.** Beiträge zur Kenntnis der Morphologie und Biologie der Malaria-Parasiten. (Russ.) Arch. sc. biol., St. Petersburg, [russ. Ausg.], 10, No. 1, 1903, (12-48, mit 1 Taf.).

**Awerinsew, S.** Ueber die Struktur der Kalkschalen mariner Rhizopoden. Zs. wiss. Zool., Leipzig, 74, 1903, (478-490, mit 1 Taf.).

Beiträge zur Kenntnis der marinen Rhizopoden. Mitt. zool. Stat. Neapel, Berlin, 16, 1903, (349-364).

**Ayrton, W.** On *Zoothamnium geniculatum*, a new Infusorian. London, J. Quek. Microsc. Cl., 8, 1903, (407-410, pl. 21); [abstract], London, J. R. Microsc. Soc., 1903, (504).

**Bezenberger, Ernst.** Ueber Infusorien aus asiatischen Anuren. Arch. Protistenkunde, Jena, 3, 1903, (138-174, mit 1 Taf.).

**Bortolotti, Ciro.** Sviluppo e propagazione delle Opalinine parassite del lombrico. Mon. zool. ital., Firenze, 13, 1902, (195-204, con fig.).

**Bruce, D. and Nabarro, D.** Progress Report on sleeping sickness in Uganda. Rep. S. S. Comm. (Royal Soc.), 1, (11-88, 10 pls.); [abstracts], Nature, London, 68, (517).

and Greig, E. D. Further Report on sleeping sickness in Uganda. Rep. S. S. Comm. IV, (87, 4 pls., 2 maps, and two text-figs.); [abstract], Lancet, London, 1903, 2, (1730-1732).

**Calkins, Gary N.** The Protozoan nucleus. Arch. Protistenkunde, Jena, 2, 1903, (213-237).

**Castellani, A.** On the discovery of a species of *Trypanosoma* in the cerebrospinal fluid of cases of sleeping sickness. London, Proc. R. Soc., 71, 1903, (501-508, 2 tables); Lancet, London, 1903, 1, (1735-1738); [abstract], Nature, London, 68, 1902, (116).

Researches on the etiology of sleeping-sickness. J. Trop. Med., London, 6, 1903, (167-171, 1 pl. and 2 text-figs.).

**Castellani, A.** Some observations on the morphology of the *Trypanosoma* found in sleeping sickness. Brit. Med. J., London, 1903, 1, (1431, 1432, 1 text-figs.).

——— Presence of *Trypanosoma* in sleeping sickness. Rep. S. S. Comm. (Royal Society), 1, (1-10, 2 tables). [Identical with preceding].

——— Adult forms and developmental forms of the *Trypanosoma* found in sleeping sickness. l.c. II, (9-13, pls. 1 and 2).

**Dangeard, P. A.** Contribution à l'étude des Diplozoaires. Paris, C.-R. Acad. sci., 136, 1903, (769-771).

**Dutton, J. E. and Todd, J. L.** First Report of the Trypanosomiasis Expedition to Senegambia (1902) of the Liverpool School of Tropical Medicine and Medical Parasitology. London (Longmans, Green & Co. for the University Press of Liverpool), 1903, (50 + vii, 5 pls. and numerous charts). 4to. [Review], Lancet, London, 1903, 2, (1727, 1728).

**Farmer, J. B.** The structure of animal and vegetable cells. Section H in Lankester's Treatise on Zoology. [One or two references to Protozoa.] Pt. I, ii, 1903, (1-46, 20 text-figs.). [Reviews], Nature, London, 68, 1903, (618); Irish Nat., Dublin, 12, 1903, (242, 243).

**Feinberg, L.** Ueber das Gewebe und die Ursache der Krebsgeschwülste. D. med. Wochenschr., Berlin, 29, 1903, (67-70).

——— Das Gewebe und die Ursache der Krebsgeschwülste. Unter Berücksichtigung des Baues der einzelligen thierischen Organismen. Berlin (A. Hirschwald), 1903, (VI + 231, mit 4 Taf.). 25 cm. 10 M.

**Ferret, P.** Observations relatives au développement de la cuticule chez le *Sarcocystis tenella*. Arch. anat. microsc., Paris, 6, 1903, (88-98, av. pl.).

**Fowler, G. H.** On *Planktonetia atlantica* Borgert. Q. J. Microsc. Sci., London, 47, 1903, (133-143, pls. 11 and 12).

**Gillot.** Coloration des hématozoaires. Paris, C.-R. soc. biol., 55, 1903, (244).

**Hamburger, Clara.** Beiträge zur Kenntnis von *Trachelius ovum*. Arch. Protistenkunde, Jena, 2, 1903, (445-474, mit 2 Taf.).

**Immermann, Ferdinand.** Ueber Fremdkörperskelette bei Aulacanthiden. Zool. Anz., Leipzig, 27, 1903, (70-76).

**Kunstler, J.** Sur la bouche des protozoaires. Arch. anat. microsc., Paris, 6, 1903, (61-74).

——— et **Gineste.** Étude de la structure du noyau des Ciliés. Bordeaux, Actes soc. linn., 58, 1903, (Proc.-verb. CLXXI-CLXXIV, av. fig.).

**Magnitskiĭ, Roman Sergeevich.** *Chilodon notamoibos* nov. sp. (Russ.) Moskva, Dnev. Zool. Otd. Imp. Obšč. ĭub. jest., III, 5, 1903, (25-27, mit Taf.). 35 cm.

**Maier, Hermann Nicolaus.** Ueber den feineren Bau der Wimperapparate der Infusorien. Arch. Protistenkunde, Jena, 2, 1903, (73-179, mit 2 Taf.).

**Mitrofanov, P. I.** Der Kernapparat der Paramoecien. Arb. a. d. zootom. Labor. d. Univ. Warschau No. XXXI. (Russ.) Varšava, Izv. Univ., 1903, (48, mit 31 fig.).

**Miyajima, Mikinosuke.** [Halteridium, parasitic in sparrows.] (Japanese) Dobuts. Z., Tokyo, 18, 1903, (131-151).

**Neresheimer, Eugen Robert.** Ueber die Höhe histologischer Differenzierung bei heterotrichen Ciliaten. Arch. Protistenkunde, Jena, 2, 1903, (305-324, mit 1 Taf.). Diss. München. Jena (G. Fischer), 1903, (22). 23 cm.

**Pearl, R. and Dunbar, F. J.** Variation and correlation in *Arcella*. Biometrika, Cambridge, 2, 1903, (321-337, 2 text-figs., 9 tables).

**Prowasek, S.** Flagellatenstudien. Anhang: Fibrilläre Strukturen der Vorticellinen. Arch. Protistenkunde, Jena, 2, 1903, (195-212, mit 2 Taf.).

**Ross, R.** Notes on the bodies recently described by Leishman and Donovan. Brit. Med. J., London, 1903, 2, (1261-1262).

——— Further notes on Leishman's bodies. l.c. (1401, 17 text-figs.).

**Smith, G.** *Actinosphaerium eichhorni*. A biometrical study in the mass relations of nucleus and cytoplasm. Biometrika, Cambridge, 2, 1903, (241-254, pls. 1-4, 4 tables).

**Stephens, J. W. and Christophers, S. R.** Note on the changes in the red cell produced by the malignant tertian parasite. Brit. Med. J., London, 1903, 1, (730).

## 0411 PHYSIOLOGY.

**Aleksandrova, V. A. u. Istomina, N. A.** Beobachtungen an Infusorien (Wirkung des Salamandergiftes, einige Wirkungen der Inductionsschläge). (Russ.) St. Petersburg, Trav. Soc. nat., **XXXIV**, 1, 1903, (Protok. No. 4-5), (156-157); deutsches Rés., (159-160).

**Brandes, G[ustav].** Ueber die Natur des Vorticellen-Stieles. Zs. Natw., Stuttgart, **75**, (1902), 1903, (459-460).

**Chéneveau, C. et Bohn, G.** De l'action du champ magnétique sur les Infusoires. Paris. C.-R. Acad. sci., **136**, 1903, (1579-1580).

**Enriques, P.** Ricerche osmotiche sugli Infusori. Roma, Rend. Acc. Lincei, (Ser. 5), **11**, 1902, (340-347).

—— Ricerche osmotiche sui Protozoi delle infusioni. Lc. (392-397).

—— Adattamento degli Infusori marini alla vita nell'acqua dolce. Mon. zool. ital., Firenze, **13**, 1902, (Supplemento), (49-59).

**Goldberger, Hugo.** Die Wirkung von anorganischen Substanzen auf Protisten. Ein Beitrag zur Biochemie des Protoplasmas. Zs. Biol., München, **43**, 1902, (503-581).

**Greeley, Arthur W[hite].** The artificial production of spores in *Monas* by a reduction of temperature. Chicago, Ill., Dec. Pub. Univ. Chic., (Ser. 1), **10**, 1903, ([71]-77, with text-fig.).

—— Reactions of *Paramoecia* and other protozoa to chemical and electrical stimuli. Science, New York, N.Y., (N. Ser.), **17**, 1903, (980-982).

**Holmes, S. J.** Phototaxis in *Volvox*. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **4**, 1903, (319-326); [abstract], London, J. R. Microsc. Soc., **1903**, (730).

**Jennings, H[erbert] Spencer].** Studies on reaction to stimuli in unicellular organisms. IX. On the behavior of fixed infusoria (*Stentor* and *Vorticella*), with special reference to the modifiability of Protozoan reactions [with bibliography]. [Contributions from the Zoological laboratory of the University of Michigan. No. 57] in Amer. J. Physiol., Boston, Mass., **8**, 1902, (23-60).

**Kunstler, J. et Glineste, Ch.** Simple remarque sur la constitution du *Balan-*

*tidium entozoon*. Paris, C.-R. soc. biol., **55**, 1903, (340).

**Ledoux-Lebard.** Action du sérum sanguin sur les Paramécies. Ann. Inst. Pasteur, Paris, **16**, 1902, (510-521).

—— Action de la lumière sur la toxicité de l'éosine et de quelques autres substances pour les Paramécies. Lc. (587-594).

**Löwit, M[oriz].** Ueber färberische Differenzen zwischen der Mastzellen-granulation und der *Haemamoeba leucemiae magna*. Beitr. path. Anat., Jena, **33**, 1903, (113-122, mit 1 Taf.).

**Loisel, Gustave.** Sur la sénescence et sur la conjugaison des Protozoaires. (Expériences et théories nouvelles.) Zool. Anz., Leipzig, **26**, 1903, (484-495); [abstract], London, J. R. Microsc. Soc., **1903**, (503).

—— Sur les causes de la sénescence chez les Protozoaires. Paris, C.-R. soc. biol., **55**, 1903, (55-57).

**Manson, P.** Trypanosomiasis on the Congo. Brit. Med. J., London, **1903**, 1, (720-721); [abstract], London, J. R. Microsc. Soc., **1903**, (307).

**Metalnikov, S. I.** Ueber die intracelluläre Verdauung. St. Petersburg, Bull. Ac. Sc., (5 F.), **19**, No. 3, 1903, (187-193).

**Monton, Henri.** Recherches sur la digestion chez les Amibes et sur leur diastase intracellulaire. Ann. Inst. Pasteur, Paris, **16**, 1902, (457-509, av. 1 pl.).

**Neresheimer, Eugen Robert.** Ueber die Höhe histologischer Differenzierung bei heterotrichen Ciliaten. Diss. München. Jena (G. Fischer), 1903, (22), 23 cm. Arch. Protistenkunde, Jena, **2**, 1903, (305-324, mit 1 Taf.).

**Okolovič, I. M.** Die Erscheinungen der Reizbarkeit bei den niederen Thieren. (Russ.) Rec. méd. vétérin., Varšava, **7**, 1902, (108-135).

**Prowasek, S.** Beitrag zur Kenntnis der Regeneration und Biologie der Protozoen. Arch. Protistenkunde, Jena, **3**, 1903, (44-59).

—— Degenerative Hyperregeneration bei den Protozoen. Lc. (60-63).

**Rievel**, [Heinrich] und **Behrens**. Beiträge zur Kenntnis der Sarcosporidien und deren Enzyme. Centralbl. Bakt., Jena, Abt. 1, **35**, Originale, 1903, (341-352).

**Rosale**, Emil. Die Reaktion einiger Infusorien auf einzelne Induktions-schläge. Diss. Leipzig. Jena (G. Fischer), 1902, (31). 23 cm.

**Statkevich**, Pavel Grigorievich. Beitrag zur Methodik der biologischen Untersuchungen von Protisten. Neue Methoden der Züchtung von Protisten sowie der Beobachtung ihrer Bewegungen. (Russ.) Moskva, Dnev. Zool. Otd. Imp. Obšč. Iiub. jest., **III**, 5, 1903, (42-51). 35 cm.

**Wallengren**, Hans. Zur Kenntnis der Galvanotaxis. [Forts.] Zs. allg. Physiol., Jena, **2**, 1903, (516-555).

## 0415 DEVELOPMENT.

**Argutinakij**, P. M. Beiträge zur Kenntnis der Morphologie und Biologie der Malaria-Parasiten. (Russ.) Arch. sc. biol., St. Petersburg, (russ. Ausg.), **10**, No. 1, 1903, (12-48, mit 1 Taf.).

**Bortolotti**, Ciro. Sviluppo e propagazione delle Opalinine parassite del lombrico. Mon. zool. ital., Firenze, **13**, 1902, (195-204, con fig.).

**Castellani**, A. Some observations on the morphology of the *Trypanosoma* found in sleeping sickness. Brit. Med. J., London, **1903**, **1**, (1431-1432, 1 text-fig.).

Adult forms and developmental forms of the *Trypanosoma* found in sleeping sickness. Rep. S. S. Comm. **II**, (9-13, pls. 1, 2).

**Drzewiecki**, W. Ueber vegetative Vorgänge im Kern und Plasma der Gregarinen des Regenwurmhodens. Arch. Protistenkunde, Jena, **3**, 1903, (107-125, mit 2 Taf.).

**Dutton**, J. E. and **Todd**, J. L. Preliminary account of the Investigations of the Liverpool Expedition to Senegambia (1902). Brit. Med. J., London, **1903**, **1**, (304-305).

**Ferret**, P. Observations relatives au développement de la cuticule chez le *Sarcocystis tenella*. Arch. anat. microsc., Paris, **6**, 1903, (88-98, av. pl.).

**Hartmann**, Max. Die Fortpflanzungsweisen der Organismen, erläutert an Protozoen, Volvocineen und Dicyemiden (zugleich Mitteilung über den Generationswechsel der Dicyemiden). Hab.-Schr. Giessen. Leipzig (G. Thieme), 1903, (43). 23 cm.

**Léger**, Louis. Sur quelques Cercomonadines nouvelles ou peu connues parasites de l'intestin des insectes. (Note préliminaire.) Arch. Protistenkunde, Jena, **2**, 1903, (180-189).

**Loisel**, Gustave. Expériences sur la conjugaison des Infusaires. Paris, C.-R. soc. biol., **55**, 1903, (53-55).

Sur la sénescence et sur la conjugaison des Protozoaires. (Expériences et théories nouvelles.) Zool. Anz., Leipzig, **26**, 1903, (484-495); [abstract], London, J. R. Microsc. Soc., **1903**, (503).

**Metzner**, Rud. Untersuchungen an *Coccidium cuniculi*. Arch. Protistenkunde, Jena, **2**, 1903, (13-72, mit 1 Taf.).

**Mitrofanov**, P. I. Der Kernapparat der Paramoecien. Arb. a. d. zootom. Labor. d. Univ. Warschau, No. XXXI. (Russ.) Varšava, Izv. Univ., **1903**, (48, mit 31 fig.).

**Miyajima**, Mikinosuke. [Halteridium, parasitic in sparrows.] (Japanese) Dobuts. Z., Tokyo, **15**, 1903, (131-151).

**Pérez**, Charles. Le cycle évolutif de l'*Adelea mesnili*, coccidie coelomique parasite d'un lépidoptère. Arch. Protistenkunde, Jena, **2**, 1903, (1-12, mit 1 Taf.).

**Prowasek**, S. Die Kernteilung des *Entosiphon*. Lc. (325-328).

Der Encystierungsvorgang bei *Dileptus*. Lc. **3**, 1903, (64-68).

**Schaudinn**, Fritz. Untersuchungen über die Fortpflanzung einiger Rhizopoden. (Vorläuf. Mitt.) Berlin, Arb. Gesundheitsamt, **19**, 1903, (547-576).

**Siegel**. Die geschlechtliche Entwicklung von *Haemogregarina stepanovi* im Rüsselegel *Placobdella catenigera*. (Vorläuf. Mitt.) Arch. Protistenkunde, Jena, **2**, 1903, (339-342).

**Silberstein**, Moritz. Beobachtungen über die Entstehung von jungen Malaria-parasiten aus älteren. Centralbl. Bakt., Jena, Abt. 1, **34**, Originale, 1903, (149-155, 225-241).

**Stempell, Walter.** Ueber die Fortpflanzung der Protozoen. Zusammenfassende Uebersicht. Greifswald, Mitt. natw. Ver., **34**, (1902), 1903, (89-97).

**Stevens, Nettie Maria.** Further studies on the ciliate Infusoria, *Lienophora* and *Boveria*. Arch. Protistenkunde, Jena, **3**, 1903, (1-43, mit 6 Taf.).

**Watson, M.** A note on the parasites of a case of malignant malaria, with a discussion of the development of the crescent. J. trop. Med., London, **6**, 1903, (221-223, 1 pl.).

## 0418 ETHOLOGY.

Jahresbericht über die Fortschritte in der Lehre von den pathogenen Mikroorganismen, umfassend Bakterien, Pilze und Protozoen. Unter Mitwirkung von Fachgenossen bearb. u. hrsg. v. [Paul] von Baumgarten [et al.]. Tangl. Jg 17, 1901. Leipzig (S. Hirzel), 1903. (XII + 1114). 23 cm. 32 M.

**Annett, H. E., Dutton, J. E. and Elliott, J. H.** Report of the Malaria Expedition to Nigeria. Liverp. Sch. Trop. Medicine, Mem. 3. London (Longmans, Green & Co.), 1902, (68, 2 pls., besides charts and illustr.).

**Argutinskij, P. M.** Beiträge zur Kenntnis der Morphologie und Biologie der Malaria-Parasiten. (Russ.) Arch. sc. biol., St. Petersburg, (Russ. Ausg.), **10**, No. 1, 1903, (12-48, mit 1 Taf.).

——— Zur Kenntniss des Tropi-  
caparasiten (*Plasmodium praecox* Gr. u. Fel.). Die Tüpfelung der Wirtszellen der Halbmonde. Centralbl. Bakt., Jena, Abt. 1, **34**, Originale, 1903, (144-149, mit 1 Taf.).

——— Ueber Malaria im europäischen Russland (ohne Finnland). Eine Skizze. Arch. Hyg., München, **47**, 1903, (317-326, mit 1 Kart.).

**Beard, J. Carter.** The *Amoeba*—a slime monster and its victim. Sci. Amer., New York, N.Y., **89**, 1903, (31).

**Berestneff, N[ikolaj].** Ueber einen neuen Blutparasiten der indischen Frösche. Arch. Protistenkunde, Jena, **2**, 1903, (343-348, mit 1 Taf.).

**Bezenberger, Ernst.** Ueber Infusorien aus asiatischen Anuren. l.c. **3**, 1903, (138-174, mit 1 Taf.).

**Bezenberger, Ernst.** Neue Infusorien aus asiatischen Anuren. Zool. Anz., Leipzig, **26**, 1903, (597-599).

**Bortolotti, C.** Sviluppo e propagazione delle Opalinine parassite del lombrico. Mon. zool. ital., Firenze, **13**, 1902, (195-204, con fig.).

**Bosc, F. J.** Les épithéliomas parasitaires. La clavelée et l'épithélioma claveléux. Centralbl. Bakt., Jena, Abt. 1, **34**, Originale, 1903, (413-420, 517-526, 666-674, mit 3 Taf.).

**Boyce, R., Ross, R. and Sherrington, C. S.** Note on the discovery of the human Trypanosome. Nature, London, **67**, 1903, (56).

——— The history of the discovery of Trypanosomes in Man. Lancet, London, **1903**, 1, (509-513).

**Bruce, D. and Nabarro, D.** Progress Report on sleeping sickness in Uganda. Rep. S. S. Comm. (Royal Soc.), **1**, (11-88, 10 pls.). [Abstract], Nature, London, **68**, (517).

——— and Greig, E. D. Further Report on sleeping sickness in Uganda. Rep. S. S. Comm. IV, (87, 4 pls., 2 maps, and 2 text figs.). [Abstract], Lancet, London, **1903**, 2, (1730-1732).

**Castellani, A.** On the discovery of a species of *Trypanosoma* in the cerebrospinal fluid of cases of sleeping sickness. London, Proc. R. Soc., **71**, 1903, (501-508, 2 tables); Lancet, London, **1903**, 1, (1735-1736); [abstract], Nature, London, **68**, 1903, (116).

——— Presence of *Trypanosoma* in sleeping sickness. Rep. S. S. Comm. (Royal Society), **1**, (1-10, 2 tables). [Identical with preceding].

——— Adult forms and developmental forms of the Trypanosome found in sleeping sickness. l.c. **II**, (9-13, pls. 1 and 2).

——— Some observations on the morphology of the *Trypanosoma* found in sleeping sickness. Brit. Med. J., London, **1903**, 1, (1431, 1432, 1 text fig.).

——— Researches on the etiology of sleeping sickness. J. trop. Med., London, **6**, 1903, (167-171, 1 pl. and 2 text-figs.).

**Chénaveau, C. et Bohn, G.** De l'action du champ magnétique sur les Infusoires. Paris, C.-R. Acad. sci., **136**, 1903, (1579-1580).

**Christy, C.** Malaria: the mode of entry of the spore into the red blood-corpuscle. Brit. Med. J., London, **1903**, 2, (645, 1 text-fig.).

**Clarke, J. J.** Protozoa and Disease. Part I. London (Baillière, Tindall & Cox), 1903, (xiv + 177, 91 figs. in text). 8vo. [Review], Lancet, London, **1903**, 2, (891, 892).

**Cohnheim, Paul.** Ueber Infusorien im Magen und im Darmkanal des Menschen und ihre klinische Bedeutung. Vortrag. D. med. Wochenschr., Berlin, **29**, 1903, (206-208, 230-232, 245-248).

**Crawley, Howard.** List of the polycystid gregarines of the United States. [with bibliography]. Philadelphia, Pa., Proc. Acad. Nat. Sci., **55**, 1903, (41-58, with pl.).

——— *Nosema geophili* sp. n., a myxosporidian parasite of *Geophilus*. l.c. (337-338). Separate. 25.6 cm.

**Dionisi, A[ntonio].** Die Malaria einiger Fledermausarten. Unters. Natk., Giessen, **17**, 1901, (281-337, mit 2 Taf.).

**Doflein, F[rantz] und Prowasek, S. von.** Die pathogenen Protozoen (mit Ausnahme der Hämosporidien). [In: Handbuch der pathogenen Mikroorganismen. Bd 1.] Jena, 1903, (865-1006).

**Donovan, C.** The etiology of one of the heterogeneous fevers of India. Brit. Med. J., London, **1903**, 2, (1401).

**Durham, H. B.** Report of the Yellow Fever Expedition to Para. Liverpool. Sch. Trop. Medicine, Mem. VII. London (Longmans, Green & Co.), 1902, (79, 1 pl.). [Important remarks on *Lankesterella*.]

**Dutton, J. E.** Report of the Malaria Expedition to the Gambia, 1902. l.c. Mem. X. London (Longmans, Green & Co.), 1903, (46, 5 pls.). [Review], Nature, London, **68**, 1903, (429).

——— and **Todd, J. L.** Preliminary account of the Investigations of the Liverpool Expedition to Senegambia (1902). Brit. Med. J., London, **1903**, 1, (304, 305).

——— First Report of the Trypanosomiasis Expedition to Sene-

gambia (1902) of the Liverpool School of Tropical Medicine and Medical Parasitology. London (Longmans, Green & Co. for the University Press of Liverpool), 1903, (50 + vii, 5 pls. and numerous charts). 4to. [Review], Lancet, London, **1903**, 2, (1727, 1728).

**Fuhrmann, O.** Myxosporidies des coréones du lac de Neuchâtel. Arch. Sci. Phys., Genève, (sér. 4), **14**, 1902, (172-173).

**Galli-Valerio, Bruno.** Notes de parasitologie. Centralbl. Bakt., Jena, Abt. 1, **35**, Originale, 1903, (81-91).

**Gotschlich, Emil.** Ueber Protozoen-Befunde (*Apiosoma*) im Blute von Flecktyphuskranken. Vorl. Mitt. D. med. Wochenschr., Berlin, **29**, 1903, (329-331).

**Grassi, Battista.** Die Malaria-Studien eines Zoologen. Nachtrag zu 2. verm. Aufl. Jena (G. Fischer), 1903, (19). 31 cm.

**Gulart, J.** Sur un nouvel infusoire parasite de l'homme. Paris, C.-R. soc. biol., **55**, 1903, (245-246).

——— Parasitologie pratique. Les parasites de l'intestin et leur recherche dans les matières fécales. Bul. sci. pharm., Paris, **6**, 1902, (152-157, 199-208, av. fig.).

**Hanna, W.** *Trypanosoma* in birds in India. Q. J. Microsc. Sci., London, **47**, 1903, (433-438, pl. 32).

**Issel, Raffaello.** Ancistridi del Golfo di Napoli. Studio monografico sopra una nuova famiglia di Cigliati, commensali di molluschi marini. Mitt. zool. Stat. Neapel, Berlin, **16**, 1903, (63-108, mit 3 Taf.).

**Johnson, Herbert P.** A new sporozoan parasite of *Anopheles*. J. Med. Res., Boston, Mass., **7**, 1902, (213-219, with pl.).

**Klimenko, W.** Beitrag zur Pathologie des *Balantidium* [*Paramoecium*] coli. Beitr. path. Anat., Jena, **33**, 1903, (281-301, mit 2 Taf.).

**Kossel, H[ermann], Schütz, [Johann Wilhelm], Weber, A[ugust], Miesner, [Hermann].** Ueber die Hämoglobininurie der Rinden in Deutschland. Berlin, Arb. Gesundheitsamt, **20**, 1903, (1-77, mit 3 Taf.).



**Kuwano**, [Hisato]. [*Trypanosoma* in the blood of *Triton pyrrhogaster*.] (Japanese) Dobuts. Z., Tokyo, **15**, 1903, (297).

**Laveran**, A. Sur deux Hippobosques du Transvaal susceptibles de propager *Trypanosoma theileri*. Paris, C.-R. soc. biol., **55**, 1903, (242-243).

Procédés de coloration des Protozoaires parasites du sang. l.c. (305-306).

et **Mesnil**, F. Le Nagana, le Surra et le Cadéras constituent trois entités morbides distinctes. Paris, C.-R. Acad. sci., **136**, 1903, (1529-1532).

Sur un Protozoaire nouveau (*Piroplasma dimovani* Lav. et Mesn.), parasite d'une fièvre de l'Inde. l.c. **137**, 1903, (957-961).

**Léger**, Louis. Sporozoaire parasite des moules et autres Lamellibranches comestibles. l.c. (1003-1005).

et **Duboscq**, O. Les grégaires et l'épithélium intestinal chez les Trachéates. Arch. parasit., Paris, **6**, 1902, (377-473, av. fig. et 5 pl.).

**Leishman**, W. B. On the possibility of the occurrence of Trypanosomiasis in India. Brit. Med. J., London, **1903**, **1**, (1252-1254, 2 text-figs.).

**Linstow**, [Otto] von. Parasiten, meistens Helminthen, aus Siam. Arch. Mikr. Anat., Bonn, **62**, 1903, (108-121, mit 1 Taf.).

**Lo Monaco**, D[om] und **Panichi**, L. Die Wirkung der antiperiodischen Heilmittel auf den Malaria Parasiten. Unters. Natk., Giessen, **17**, 1901, (264-280).

**Magnitskiy**, Roman Sergěevič. *Chilodon notamoibos* n. sp. (Russ.) Moskva, Dnev. Zool. Otd. Imp. Obsč. Iub. jest., **III**, 5, 1903, (25-27, mit Taf.). 35 cm.

**Manson**, P. Trypanosomiasis on the Congo. Brit. Med. J., London, **1903**, **1**, (720-721); [abstract], London, J. R. Microsc. Soc., **1903**, (307).

Tropical Diseases. A Manual of the Diseases of Warm Climates. New and Revised Edition. London (Cassell & Co.), 1903, (xxiv + 756, 2 pls. and 130 text-figs.). [Contains

a general account of malarial and other Protozoan parasites.] 8vo.

**Manson**, P. and **Daniels**, C. W. Remarks on a case of Trypanosomiasis. Brit. Med. J., London, **1903**, **1**, (1249-1252, 2 text-figs.).

**Martini**, Erich. Ueber die Entwicklung der Tsetseparasiten in Säugethieren. Zs. Hyg., Leipzig, **42**, 1903, (341-350, mit 1 Taf.).

**Matthews**, C. G. and **Oswell**, B. L. The microscopic life of the river Trent. Burton-on-Trent, Trans. Nat. Hist. Soc., **5**, **1**, 1903, (31-34).

**Maxwell-Adams**, A. Trypanosomiasis and its cause. Brit. Med. J., London, **1903**, **1**, (721, 722); [abstract], London, J. R. Microsc. Soc., **1903**, (307).

**Metchnikov**, S. I. Ueber die Fähigkeit der Infusorien (*Paramoecium*) ihre Nahrung zu wählen. (Russ.) St. Petersburg, Bull. labor. biol., **V**, **4**, 1902, (23-26).

**Minchin**, E. A. The Sporozoa. Section K in Lankester's Treatise on Zoology, pt. I. ii, (150-360, 127 text-figs.). [Reviews], Nature, London, **68**, 1903, (618); Irish Nat., Dublin, **12**, 1903, (242, 243).

**Miyajima**, Mikinosuke. [*Halteridium*, parasitic in sparrows.] (Japanese) Dobuts. Z., Tokyo, **15**, 1903, (131-151).

**Mollisch**, Hans. Amöben als Parasiten in *Volvox*. Berlin, Ber. D. bot. Ges., **21**, 1903, (20-23, mit 1 Taf.).

**Mishikawa**, Tōkichi. . . . *Gymnodinium* sp. [as principal element in the "red current"]. (Japanese) Dobuts. Z., Tokyo, **15**, 1903, (347-353).

**Panichi**, L. Sulla sede del parassita malarico nell'eritrocito dell'uomo. Archivio farmac., Roma, **1**, 1902, (418-432).

**Penard**, E. Observations sur les héliozoaires. Arch. Sci. Phys., Genève, (sér. 4), **15**, 1903, (351-352).

**Perroncito**, E. Il coccidio jalino (*Coccidium jalinum* n. sp.) ed il microsporidio poliedrico (*Microsporidium polyedrium*, Bolle) nell'uomo. Torino, Giorn. Acc. Med., **65**, 1902, (378).

**Plehn**, Marianne. *Trypanoplasma cyprini* nov. sp. Arch. Protistenkunde, Jena, **3**, 1903, (175-180, mit 1 Taf.).

**Pfimmer, H. G.** The parasitic theory of cancer. Brit. Med. J., London, 1903, 2, (1511-1515).

**Pfösch, Rudolf.** Ueber das Verhalten der weissen Blutkörperchen bei Malaria. Zs. Hyg., Leipzig, 42, 1903, (563-626).

**Rabinowitsch, Lydia and Kempner, W.** Die Trypanosomen in der Menschen- und Tierpathologie, sowie vergleichende Trypanosomenuntersuchungen. Centralbl. Bakt., Jena, Abt. 1, 34, Originale, 1903, (804-822, mit 1 Taf.).

**Ross, R.** Report on Malaria at Ismalia and Suez. Liverp. Sch. Trop. Medicine, Mem. IX. London (Longmans, Green & Co.) 1903, (24).

**Rudmose Brown, R. N.** 3. Plankton and Botany. In "The Scotia's voyage to the Falkland Islands." [Abundant occurrence of *Peridiniidae*.] Scot. Geog. Mag., Edinburgh, 19, 1903, (175, 176); [abstract], London, J. R. Microsc. Soc., 1903, (526).

**Sabrazès, [J.] et Muratet, [L.]** Trypanosome de l'anguille (*Anguilla vulgaris*). Bordeaux, Actes soc. linn., (sér. 6), 7, 1902, (Proc. verb. LXXXII-LXXXIII, CXXIV-CXXVIII, av. 1 pl.).

**Sambon, L.** Sleeping-sickness in the light of recent knowledge. J. trop. Med., London, 6, 1903, (201-209, 2 text-figs.).

**Schat, P.** Weitere Mitteilungen über Surra [eine durch ein *Trypanosoma* verursachte Rinderkrankheit]. (Holländisch) Arch. Java Suiker., Soerabaya, 11, 1903, (49-67, mit 2 Taf.).

**Schüffner, Wilhelm.** Die Beziehungen der Malariaparasiten zu Mensch und Mücke an der Ostküste Sumatras. Zs. Hyg., Leipzig, 41, 1902, (89-122, mit 4 Taf.).

**Scourfield, D. J.** Lakes and their scientific investigation. London, Proc. S. Lond. Ent. Nat. Hist. Soc., 1902, (61-66).

**Shipley, A.** On the ento-parasites collected by the "Skeat Expedition" to Lower Siam and the Malay Peninsula in the years 1899-1900. London, Proc. Zool. Soc., 1903, 2, (145-156, pl. 16).

**Stebbins, James H., jun.** On the occurrence of parasites in the blood of the *Damonia retesii* turtle. J. Appl. Microsc., Rochester, N.Y., 6, 1903, (2164-2168).

**Stephens, J. W. and Christophers, S. R.** The practical study of malaria and other blood parasites. London (Longmans, Green & Co.), 1903, (vi + 378 + xxxv, 2 pls., 93 text-figs.). 8vo.

**Taylor, L.** Second Progress Report of the Campaign against Mosquitoes in Sierra Leone. Liverp. Sch. Trop. Medicine, Mem. 5, pt. 2. Liverpool (University Press) 1902, (13).

**Thompson, I. C.** On the plankton of the Indian Ocean. London, Rep. Brit. Ass., 1902, 1903, (643-644).

**Tyner, E. E.** Coccidium infection of the rabbit's liver. [With bibliography.] J. Med. Res., Boston, Mass., 7, 1902, (235-254, with pl.).

**Watson, M.** A note on the parasites of a case of malignant malaria, with a discussion of the development of the crescent. J. trop. Med., London, 6, 1903, (221-223, 1 pl.).

**Woodcock, H. M.** Report, in Report of the Committee on investigations made at the Marine Biological Laboratory, Plymouth. London, Rep. Brit. Ass., 1902, (271-272).

**Yatsu, [Naohide].** [Habits of *Amoeba*.] (Japanese) Dobuts. Z., Tokyo, 16, 1903, (297-298).

**Zorn, Ludwig.** Beitrag zur Kenntniss der Amöben-Enteritis. Diss. München (Druck v. Kastner & Loosen), 1901, (32). 20 cm.

## 0423 ETIOLOGY.

**Magnitskiĭ, Roman Sergěevič.** *Chilodon notamoibos* n. sp. (Russ.) Moskva, Dnev. Zool. Otd. Imp. Obšč. ĭub. jest., III, 5, 1903, (25-27, mit Taf.). 35 cm.

**Negri, A.** Beitrag zum Studium der Aetiologie der Tollwuth. Zs. Hyg., Leipzig, 43, (507-528, mit 2 Taf.).

**Pearl, R. and Dunbar, F. J.** Variation and correlation in *Arceella*. Biometrika, Cambridge, 2, 1903, (321-337, 2 text-figs., 9 tables).

**Statkovič, Pavel Grigorievič.** Beitrag zur Methodik der biologischen Untersuchungen von Protisten. Neue Methoden der Züchtung von Protisten sowie der Beobachtung ihrer Bewegungen. (Russ.) Moskva, Dnev. Zool. Otd. Imp. Obšč. ĭub. jest., III, 5, 1903, (42-51). 35 cm.

**West, G. S.** Observations on freshwater Rhizopods, with some remarks on their classification. London, J. Linn. Soc. Zool., **29**, 1903, (108-117, pl. 13).

## 0427 GEOGRAPHICAL DISTRIBUTION.

**West, G. S.** Observations on freshwater Rhizopods, with some remarks on their classification. London, J. Linn. Soc. Zool., **29**, 1903, (108-117, pl. 13).

**Woodward, H.** Note on the occurrence of Protozoa geologically, in: The President's Address: Some Ideas on Life. London, J. R. Microsc. Soc., **1903**, (142-157, text-figs., 35 and 36, 1 table).

### d EUROPE.

#### db RUSSIA IN EUROPE.

**Minkiewitsch, R. K.** Ueber eine Art *Codonella* im Plankton des Asow'schen und Aralischen Meeres. (Russ.) Taschent, Izv. Turk. Otd. Russ. Geogr. Obsč., **III**, livr. **3**, 1903, (43-46).

#### dc BRITISH ISLANDS.

**Holmes, W. M.** Foraminifera from the Gault at Merstham. Croydon, Proc. Microsc. Nat. Hist. Cl., **1903**, (34-40).

**Jukes-Browne, A. J.** The Cretaceous Rocks of Britain. Vol. II. The Lower and Middle Chalk of England. Mem. Geol. Surv. U. K., London, **1903**, (xiii + 568, 8 pls., 87 text-figs.).

**Matthews, C. G. and Oswald, B. L.** The microscopic life of the river Trent. Burton-on-Trent, Trans. Nat. Hist. Soc., **5**, 1, 1903, (31-34).

**Pearcy, F. G.** Notes on the marine deposits of the Firth of Forth, and their relation to its animal life. Glasgow, Trans. Nat. Hist. Soc., **6**, 1903, (217-251, with map).

**Thompson, B.** The junction beds of the Upper Lias and Inferior Oolite in Northamptonshire. Pt. II: Stratigraphical and Palaeontological. Northampton, J. Nat. Hist. Soc., **11**, 1903, (197-216, 235-244); **12**, 1903, (54-69).

**Wright, J.** The micro-fauna of the Boulder Clay, with some remarks on the movement of glaciers. Belfast, Rep. Nat. Hist. Phil. Soc., **1903**, (47-50).

——— The Foraminifera of the Boulder Clay of Knock Glen, Co. Down. Belfast, Rep. Nat. F. Cl., (Ser. 2), **5**, 1903, (59-63).

——— Foraminiferal Boulder Clay from Woodburn, Carrickfergus. L.c. (109-114).

——— Foraminiferal, high-level Boulder Clay in the County of Dublin, and in Dumfriesshire and Ayrshire; with observations on the origin of Boulder Clays. Irish Nat., Dublin, **12**, 1903, (173-180).

### df FRANCE.

**Pérez, Ch.** Sur un Acinétien nouveau, *Lernaeophrya capitata*, trouvé sur le *Cordylophora lacustris*. Paris, C.-R. soc. biol., **55**, 1903, (98-100, av. fig.).

### di SWITZERLAND.

**Forel, F. A.** Le Léman. Monographie limnologique. Vol. iii, pt. 1, Lausanne (F. Rouge), 1902, (411, text-figs. 167-227). [Review], Nature, London, **67**, (411-412).

**Fuhrmann, O.** Myxosporidies des coréogones du lac de Neuchâtel. Arch. Sci. Phys., Genève, (Ser. 4), **14**, 1902, (172-173).

**Penard, E.** Un Rhizopode nouveau: *Clathrella foreli*. Verh. Schweiz. Natf. Ges., Aarau, **85**, 1902, (80); Arch. Sci. Phys., Genève, (4), **14**, 1902, (554).

——— *La Multicilia lacustris* et ses flagellés. Rev. Suisse Zool., Genève, **11**, 1903, (123-149, av. 1 pl.).

### dm MEDITERRANEAN.

**Steuer, Adolf.** Ueber das Vorkommen von Coccolithophoriden im Golf von Triest. (Mitt. aus d. zool. Stat. Triest. No. 7.) Zool. Anz., Leipzig, **27**, 1903, (120-131).

**e ASIA AND MALAY ARCHIPELAGO.**

**ea ASIATIC RUSSIA.**

**Minkiewitsch, R. K.** Ueber eine neue Art *Codonella* im Plankton des Asowschen und Aralischen Meeres. (Russ.) Taschent, Izv. Turk. Otd. Russ. Geogr. Obsč., III, livr. 3, (43-46).

**Zernov, S. A.** Ueber das Zooplankton des Aral-Sees, auf Grund der von L. S. Berg im Jahre 1900 gesammelten Materialien. (Russ.) l.c. (1-38).

**ec SIAM.**

**Linstow, [Otto] von.** Parasiten, meistens Helminthen, aus Siam. Arch. mikr. Anat., Bonn, 62, 1903, (108-121, mit 1 Taf.).

**ef BRITISH INDIA: HIMALAYA; BURMA; CEYLON.**

**Letahman, W. B.** On the possibility of the occurrence of Trypanosomiasis in India. Brit. Med. J., London, 1903, 1, (1252-1254, 2 text-figs.).

**Lomas, J.** Report on the Sea bottoms and Calcretes collected by Prof. Herdman. In: Report on Pearl oyster Fisheries of the Gulf of Manoir. London, 1903, (148-162).

**eg MALAY PENINSULA AND ARCHIPELAGO.**

**Millett, W. F.** Report on the Recent Foraminifera of the Malay Archipelago collected by Mr. A. Durrand, F.R.M.S. Part XIV. London, J. R. Microsc. Soc., 1903, (253-275, pl. 5).

**Shipley, A.** On the ento-parasites collected by the "Skeat Expedition" to Lower Siam and the Malay Peninsula in the years 1899-1900. London, Proc. Zool. Soc., 1903, 2, (145-156, pl. 16).

**f AFRICA AND MADAGASCAR.**

**fb N.E. AFRICA.**

**Ross, R.** Report on Malaria at Ismalia and Suez. Liverp. Sch. Trop. Medicine, Mem. ix. London (Longmans, Green & Co.), 1903, (24).

**fd WEST AFRICA.**

**Annett, H. E., Dutton, J. E. and Elliott, J. H.** Report of the Malaria Expeditions to Nigeria. Liverp. Sch. Trop. Medicine, Mem. 3. London (Longmans, Green & Co.), 1902, (68, 2 pls., besides charts and illustrs.).

**Manson, P.** Trypanosomiasis on the Congo. Brit. Med. J., London, 1903, 1, (720-721); [abstract], London, J. R. Microsc. Soc., 1903, (307).

**g NORTH AMERICA.**

**gf UNITED STATES AS A WHOLE.**

**Crawley, Howard.** List of the polycystid gregarines of the United States, [with bibliography]. Philadelphia, Pa., Proc. Acad. Nat. Sci., 55, 1903, (41-58, with pl.).

— The polycystid gregarines of the United States. Second contribution [with bibliography]. [From Philadelphia, Pa., Proc. Acad. Nat. Sci., October, 1903], (632-644, with pl.). Separate. 25.5 cm.

**gg NORTH-EASTERN UNITED STATES.**

**Calkins, G. N.** Marine Protozoa from Wood's Holl. Washington, D.C., Bull. U. S. Fish Com., 21, (1901), 1902, (413-468, with figs.).

**h CENTRAL AND SOUTH AMERICA AND WEST INDIES.**

**hh BRAZIL.**

**Durham, H. B.** Report of the yellow fever expedition to Para. Liverp. Sch. Trop. Medicine, Mem. VII. London, (Longmans, Green & Co.), 1902, (79, 1 pl.). [Important remarks on *Lankesterella*].

**hl FALKLAND ISLANDS.**

**Rudmose Brown, R. N.** 3. Plankton and Botany. In "The Scotia's voyage to the Falkland Islands." [Abundant occurrence of *Peridiniidae*.] Scot. Geog. Mag., Edinburgh, 19, 1903, (175-176); [abstract], London, J. R. Microsc. Soc., 1903, (526).

k ARCTIO.

kd ISLANDS NORTH OF EUROPE AND ASIA.

**Penard**, Eugène. Notice sur les Rhizopodes du Spitzberg. Arch. Protistenkunde, Jena, 2, 1903, (238-282).

## 0431 TAXONOMY AND SYSTEMATIC.

### GENERAL.

**Calkins**, G. N. Marine Protozoa from Wood's Holl. [With bibliography.] Washington, D.C., Bull. U.S. Fish Com., 21, (1901), 1902, (413-468, with text fig.).

**Zacharias**, O. Zur Kenntnis der niedern Flora und Fauna holsteinischer Moorsümpfe. Plön, ForschBer. biol. Stat., 10, 1903, (223-289, mit 1 Taf.).

### MYCETOZOA.

*Arachnula impatiens* du Spitzberg. **Penard**, E. Arch. Protistenkunde, Jena, 2, 1903, (241-244).

——— Beschreibung. **Rhumbler**, L. L.c. 3, 1903, (189).

*Biomyza vagans*, *B. cometa*, Beschreibung. **Rhumbler**, L. L.c. (186-187, figs. 2, 3).

*Dictiomyza trinchesei*, Beschreibung. **Rhumbler**, L. L.c. (191-192, fig. 9).

*Myzodictium sociale*, Beschreibung. **Rhumbler**, L. L.c. (192, fig. 10).

*Pontomyza pallida*, *P. flava*, Beschreibung. **Rhumbler**, L. L.c. (189-190, figs. 5-6).

*Protophyes primordialis*, Beschreibung. **Rhumbler**, L. L.c. (186, fig. 1).

*Protophyes aurantiaca*, Beschreibung. **Rhumbler**, L. L.c. (190, fig. 7).

*Rhizoplasma kaiseri*, Beschreibung. **Rhumbler**, L. L.c. (190, fig. 8).

### RHIZOPODA.

#### GENERAL.

**Penard**, E. Notice sur les Rhizopodes du Spitzberg. Arch. Protistenkunde, Jena, 2, 1903, (238-282).

**West**, G. S. Observations on freshwater Rhizopoda, with some remarks on their classification. London, J. Linn. Soc. Zool., 29, 1903, (108-117, pl. 13).

### RADIOLARIA.

*Planktonetta atlantica* Borgert. **Fowler**, G. H. London, Q. J. Microsc. Sci., 47, 1903, (133-143, pls. 11, 12).

### HELIOZOA.

#### GENERAL.

**Penard**, E. Observations sur les héliozoaires. Arch. Sci. Phys., Genève, (sér. 4), 15, 1903, (351-352).

#### SPECIAL.

*Actinocoma* n. gen. (= *Actinophrys*), *A. ramosa* n. sp. **Penard**, E. Arch. Protistenkunde, Jena, 2, 1903, (283-304).

*Actinosphaerium eichhorni*, a biometrical study in the mass relations of nucleus and cytoplasm. **Smith**, G. Biometrika, Cambridge, 2, 1903, (241-254, pls. 1-4, 4 tables).

*Nuclearia caulescens* n. sp. Spitzberg. **Penard**, E. Arch. Protistenkunde, Jena, 2, 1903, (272).

——— *conspicua* n. sp. **West**, G. S. London, J. Linn. Soc. Zool., 29, 1903, (111-112).

*Rhaphidiophrys brunii* n. sp. Spitzberg. **Penard**, E. Arch. Protistenkunde, Jena, 2, 1903, (277, fig. 14).

### FORAMINIFERA.

#### GENERAL.

**Grobben**, [K.]. Ueber die systematische Gruppierung der Amöben und Foraminiferen. Verh. Ges. D. Natf., Leipzig, 74, (1902), II, 1, 1903, (151-152).

**Herrmann**, A. Zweiter Beitrag zur Kenntnis des Vorkommens von Foraminiferen im Tertiär des Unter-Elsass. Strassburg, Mitt. geol. Landesanst., 5, 1903, (263-273).

——— Dritter Beitrag zur Kenntnis des Vorkommens von Foraminiferen

im Tertiär der Gegend von Pechelbronn, Lobsann, Sulz u/Wald und Gunstett im Unter-Elsass. *L.c.* (323-341).

**Holmes, M. W.** Foraminifera from the Gault at Merstham. Croydon, Proc. Microsc. Nat. Hist. Cl., **1903**, (34-40).

**Millett, W. F.** Report on the recent Foraminifera of the Malay Archipelago collected by Mr. A. Durrand, F.R.M.S. Part XIV. London, J. R. Microsc. Soc., **1903**, (253-275, pl. 5).

**Schick, T.** Beiträge zur Kenntnis der Mikrofauna des schwäbischen Lias. Stuttgart, Jahreshfte Ver. Natk., **59**, 1903, (111-177, mit 3 Taf.).

**Silvestri, A.** Lageninae del Mare Tirreno. Roma, Mem. Acc. Nuovi Lincei, **19**, 1902, (133-172, con fig.).

## SPECIAL.

*Allogromia* n. nom., *A. ovoidea* n. nom. **Rhumbler, L.** Arch. Protistenkunde, Jena, **3**, 1903, (203, 207, figs. 19, 23).

*Amphicoryne glabra* n. sp. Malay Archipelago. **Millett, W. F.** London, J. R. Microsc. Soc., **1903**, (253-275, pl. 5).

*Amphitrema lemanense* n. sp. **Penard, E.** Arch. Protistenkunde, Jena, **2**, 1903, (289, fig. 3).

*Cornuspira primitiva* n. nom. **Rhumbler, L.** *L.c.* **3**, 1903, (181-294).

*Cyclammina le-beli* † n. sp. Tertiär, Unter-Elsass. **Herrmann, A.** Strassburg, Mitt. geol. Landesanst., **5**, 1903, (340).

*Dimorphina lingulinoides* n. sp. Malay Archipelago. **Millett, W. F.** London, J. R. Microsc. Soc., **1903**, (266, pl. 5).

*Diplogromea* n. nom. **Rhumbler, L.** Arch. Protistenkunde, Jena, **3**, 1903, (214).

*Fissurina* nn. spp. Mare Tirreno. **Silvestri, A.** Roma, Mem. Acc. Nuovi Lincei, **19**, 1902, (143, 144, 146, 147).

*Fusulina alternans* † n. sp. Ostasien. **Schellwien, E.** In: K. Futterer, Durch Asien, Bd 3, 1903, (125-174).

*Lagena* nn. spp. Mare Tirreno. **Silvestri, A.** Roma, Mem. Acc. Nuovi Lincei, **19**, 1902, (153, 156, 162).

*Lagunculina* n. nom. **Rhumbler, L.** Arch. Protistenkunde, Jena, **3**, 1903, (248).

*Marsupulina* n. nom. for *M. schultzei* n. nom. **Rhumbler, L.** *L.c.* (250, fig. 89).

*Millettella* n. nom. **Rhumbler, L.** *L.c.* (250).

*Pamphagus hirsutus* n. sp. Spitzberg. **Penard, E.** *L.c.* **2**, 1903, (266, fig. 10).

*Tolypammina* n. nom., *T. schaudinni* n. nom. **Rhumbler, L.** *L.c.* **3**, 1903, (277, fig. 126).

*Turritellella* n. nom. **Rhumbler, L.** *L.c.* (283).

*Uvigerina auberiana* D'Orbigny var. *glabra* n. var. Malay Archipelago. **Millett, W. F.** London, J. R. Microsc. Soc., **1903**, (268, pl. V, figs. 8, 9).

*Vaginulina sulzensis* † n. sp. Tertiär, Unter-Elsass. **Herrmann, A.** Strassburg, Mitt. geol. Landesanst., **5**, 1903, (273, text fig. 1).

*Webbinella* n. nom. **Rhumbler, L.** Arch. Protistenkunde, Jena, **3**, 1903, (229, fig. 55).

## AMOEBAEA.

*Amoeba*. **Beard, J. C.** Sci. Amer., New York, N.Y., **89**, 1903, (31).

*Arcella vulgaris*, variability in shell. **Pearl, R.** and **Dunbar, F. J.** Biometrika, Cambridge, **2**, 1903, (321-327).

*Clathrella* n. gen., *C. foreli* n. sp. **Penard, E.** Verh. Schweiz. Natf. Ges., Aarau, **85**, 1902, (80); Arch. Sci. Phys., Genève, (4), **14**, 1902, (554); Arch. Protistenkunde, Jena, **2**, 1903, (283-304).

*Ochliopodium opalinum* n. sp. Spitzberg. **Penard, E.** Arch. Protistenkunde, Jena, **2**, 1903, (250, fig. 5).

*Cryptodiffugia turfacea* n. sp. **Zacharias, O.** Plön, ForschBer. biol. Stat., **10**, 1903, (239, pl. II, fig. 18).

*Hyalosphenia* nn. spp. Ireland and Hebrides. **West, G. S.** London, J. Linn. Soc. Zool., **29**, 1903, (114-115).

*Sphenoderia pulchella* n. sp. **West, G. S.** *L.c.* (115-116).

## SPOROZOA.

## GENERAL.

**Bosc, F. J.** Les épithéliomas parasitaires. La clavelée et l'épithélioma claveleux. *Centralbl. Bakt., Jena, Abt. 1*, **34**, Originale, 1903, (413-420, 517-526, 666-674, mit 3 Taf.).

**Johnson, H. P.** A new sporozoan parasite of *Anopheles*. *J. Med. Res., Boston, Mass.*, **7**, 1902, (213-219, with pl.).

**Lindner, G.** Regelmässiger Befund spezifischer Monaden in den Miescher'schen Schläuchen. *Natw. Wochenschr., Jena*, **18**, 1903, (315-316).

**Lutz, A. und Splendore, A.** Ueber Pebrine und verwandte Mikrosporidien. Ein Beitrag zur Kenntnis der brasilianischen Sporozoen. Erste Mitteilung. *Centralbl. Bakt., Jena, Abt. 1*, **33**, Originale, 1903, (150-157).

**Panichi, L.** Sulla sede del parassita malarico nell'eritrocito dell'uomo. *Archivio farmac., Roma*, **1**, 1902, (148-432).

**Léger, L.** Sporozoaire parasite des moules et autres Lamellibranches comestibles. *Paris, C.-R. Acad. sci.*, **137**, 1903, (1003-1005).

## GREGARINIDA.

## GENERAL.

**Crawley, H.** List of the polycystid gregarines of the United States [with bibliography]. *Philadelphia, Pa., Proc. Acad. Nat. Sci.*, **55**, 1903, (41-58, with pl.).

—— The polycystid gregarines of the United States. Second contribution. [With bibliography.] *l.c.* (632-644, with pl.). Separate. 25.5 cm.

**Léger, L. et Dubosq, O.** Les gregarines et l'épithélium intestinal chez les Trachéates. *Arch. parasit., Paris*, **6**, 1902, (377-473, av. fig. et 5 pl.).

## SPECIAL.

*Actinocephalus americanus* n. sp. United States. **Crawley, H.** *Philadelphia, Pa., Proc. Acad. Nat. Sci.*, **55**, 1903, (623, pl. XXX, fig. 22).

*Acutispora* n. gen., *A. macrocephala* n. sp. United States. **Crawley, H.** *l.c.* (632, pl. XXX, figs. 1-6).

*Amphoroides fontariae* n. sp. United States. **Crawley, H.** *l.c.* **55**, 1903, (53, pl. I, figs. 12-14).

*Asterophora eratoparis* n. sp. United States. **Crawley, H.** *l.c.* (54, pl. II, fig. 23).

*Doliocystis rhyncobli* n. sp. United States. **Crawley, H.** *l.c.* (56).

*Euspora lucani* n. sp. United States. **Crawley, H.** *l.c.* (50, pl. III, fig. 38).

*Gigaductus* n. gen., *G. parvus* n. sp. United States. **Crawley, H.** *l.c.* (633, pl. XXX, figs. 10-13).

*Gregarina* nn. spp. United States. **Crawley, H.** *l.c.* (46-49, pl. I, figs. 1-11, pl. II, figs. 19-21, 26-28, pl. III, figs. 29-30).

*Hirmocystis* (?) *oralis* n. sp. **Crawley, H.** *l.c.* (50, pl. I, figs. 5-6).

*Hoplorhynchus scolopendras* n. sp. United States. **Crawley, H.** *l.c.* (636, pl. XXX, fig. 19).

*Monocystis*, vegetative Vorgänge im Kern und Plasma. **Drzewiecki, W.** *Arch. Protistenkunde, Jena*, **3**, 1903, (107-125, mit 2 Taf.).

*Stenophora spiroboli* n. sp. United States. **Crawley, H.** *Philadelphia, Pa., Proc. Acad. Nat. Sci.*, **55**, 1903, (51, pl. II, fig. 22).

*Trichorhynchus lithobii* n. sp. United States. **Crawley, H.** *l.c.* (637, pl. XXX, fig. 18).

## COCCIDIIDEA.

## GENERAL.

**Clum, [M.].** Ricerche sugli Sporozoi. *Mon. zool. ital., Firenze*, **13**, 1902, (Supplemento), (42-43).

**Lühe, M.** Die Coccidien-Literatur der letzten 4 Jahre. Zusammenfassende Besprechung. *Zool. Centralbl., Leipzig*, **10**, 1903, (617-661).

## SPECIAL.

*Adelea mesnili*, cycle évolutif. **Pérez, C.** *Arch. Protistenkunde, Jena*, **2**, 1903, (1-12, mit 1 Taf.).

*Coccidium*, infection of rabbit's liver. **Tymer, E. E.** J. Med. Res., Boston, Mass., 7, 1902, (235-254, with pl.).

—— *cuniculi*, Untersuchungen. **Netzer, R.** Arch. Protistenkunde, Jena, 2, 1903, (13-72, mit 1 Taf.).

—— *faurei* n. sp. parasite du mouton. **Moussu, G. et Marotel, G.** Arch. parasit., Paris, 6, 1902, (82-98, av. 10 fig.).

—— *jalinum* n. sp., nell'uomo. **Ferronitto, E.** Torino, Giorn. Acc. med., 65, 1902, (378).

—— *scyllii* n. sp. **Drago, U.** Roma, Ric. Lab. anat. norm., 9, fasc. 1°, 1902, (89-94, con fig.).

*Legerina* n. gen. = *Klossia octopiana* Schn. u. *K. eberthi* Labbé. **Jaquemot, M.** Arch. Protistenkunde, Jena, 2, 1903, (190-194).

## HAEMOSPORIDIA.

### GENERAL.

**Argutinsky, P.** Ueber Malaria im europäischen Russland (ohne Finnland). Eine Skizze. Arch. Hyg., München, 47, 1903, (317-326, mit 1 Kart.).

**Gilli, [M.]** Ricerche sugli Sporozoi. Mon. zool. ital., Firenze, 13, 1902, (Supplemento), (42-43).

**Doflein, [Franz] und Frowasak, S. von.** Die pathogenen Protozoen (mit Ausnahme der Hämosporidien). [In: Handbuch der pathogenen Mikroorganismen. Bd 1.] Jena, 1903, (865-1006).

**Gillot.** Coloration des hématozoaires. Paris, C.-R. soc. biol., 55, 1903, (244).

**Lo Monaco, [Dom.] und Panichi, L.** Die Wirkung der antiperiodischen Heilmittel auf den Malaria-parasiten. Unters. Natk., Giessen, 17, 1901, (264-280).

**Martini, Erich.** Ueber die Entstehung der Neuerkrankungen an Malaria während des Frühjahres und Sommers unserer Breiten. Zs. Hyg., Leipzig, 41, 1902, (147-152, mit 2 Taf.).

—— Ueber die Entwicklung der Testesparasiten in Säugethieren. I.e. 42, 1903, (341-350, mit 1 Taf.).

**Pösch, R.** Ueber das Verhalten der weissen Blutkörperchen bei Malaria. I.e. (563-626).

(N 2-9053)

**Schüffner, W.** Die Beziehungen der Malaria-parasiten zu Mensch und Mücke an der Ostküste Sumatras. I.e. 41, 1902, (89-122, mit 4 Taf.).

**Silberstein, Moritz.** Beobachtungen über die Entstehung von jungen Malaria-parasiten aus älteren. Centralbl. Bakt., Jena, Abt. 1, 34, Originale, 1903, (149-155, 225-241).

### SPECIAL.

*Haemamoeba leucemia magna*, Vergleichung mit Mastzellengranulation. **Löwit, M.** Beitr. path. Anat., Jena, 33, 1903, (113-122, mit 1 Taf.).

*Haemogregarina stepanovi*, geschlechtliche Entwicklung im Rüssellegel *Placobdella catenigera*. **Siegel.** Arch. Protistenkunde, Jena, 2, 1903, (339-342).

*Lankesterella monilis*, Blutparasit der indischen Frösche. **Berestneff, N.** I.e. (343-348, mit 1 Taf.).

*Piroplasma donovani* n. sp., parasite d'une fièvre de l'Inde. **Laveran, A. et Mesnil, F.** Paris, C.-R. Acad. sci., 137, 1903, (957-961).

*Plasmodium malariae*. **Grassi, B.** Die Malaria-Studien eines Zoologen. Nachtrag zur 2. verm. Aufl. Jena (G. Fischer), 1903, (19). 31 cm.

—— *praecox*, Tüpfelung der Wirtszellen der Halbmonde. **Argutinsky, P.** Centralbl. Bakt., Jena, Abt. 1, 34, Originale, 1903, (144-149, mit 1 Taf.).

## MYXOSPORIDIA.

*Henneguyia zschokkei* Gurley (= *H. holesnikovi* Gurley, and *Myxobolus bicaudatus* Zschokke) from *Coregonus* sp., note. **Fuhrmann, O.** Arch. Sci. Phys., Genève, (sér. 4), 14, 1902, (172-173).

*Microsporidium polyedricum* Bolle, nell'uomo. **Ferronitto, E.** Torino, Giorn. Acc. med., 65, 1902, (378).

*Nosema geophili* n. sp., parasitism on *Geophilus*. **Crawley, H.** Philadelphia, Pa., Proc. Acad. Nat. Sci., 55, 1903, (337-338).



## SARCOSPORIDIA.

## GENERAL.

**Rievel**, [H.] und **Behrens**. Beiträge zur Kenntnis der Sarcosporidien und deren Enzyme. Centralbl. Bakt., Jena, Abt. 1, **35**, Originale, 1903, (341-352).

## SPECIAL.

*Balbiana siamensis* n. sp. Siam. **Linstow**, [O.] von. Arch. mikr. Anat., Bonn, **62**, 1903, (108-121, mit 1 Taf.).

## INCERTAE SEDIS.

*Ascosporeidium blochmanni*, Infektion von *Synchaeta pectinata* Ehrenb. **Zacharias**, O. Plön, ForschBer. biol. Stat, **10**, 1903, (201-222, mit 1 Taf.).

*Histosporidium* n. gen., *H. carcinomatosum* n. sp. **Feinberg**, L. Das Gewebe und die Ursache der Krebsgeschwülste. Berlin (A. Hirschwald), 1903, (VI + 231, mit 4 Taf.). 25 cm. 10 M.

*Polycaryum*, Beiträge zur Kenntnis der Gattung, *P. laeve* n. sp. in *Daphnia longispina*. **Stampell**, W. Arch. Protistenkunde, Jena, **2**, 1903, (349-363, mit 1 Taf.).

## UNCLASSIFIED BY THE SLIP MAKER.

*Achromaticus vesperuginis* n. sp. **Dionisi**, A. Unters. Natk., Giessen, **17**, 1901, (281-337, mit 2 Taf.).

*Halteridium*, parasitic in sparrows. (Japanese) **Miyajima**, M. Dobuts. Z., Tokyo, **15**, 1903, (131-151).

*Polychromophilus* nn. spp. **Dionisi**, A. Unters. Natk., Giessen, **17**, 1901, (281-337, mit 2 Taf.).

*Pyrosoma*. Bemerkungen über die Entdeckung des Parasiten der seuchenhaften Hämoglobinurie des Rindes. (Texasfieber, Tristeza, etc.) und des "Cärceag" des Schafes. **Babes**, V. Centralbl. Bakt., Jena, Abt. 1, **33**, Originale, 1903, (449-458).

—— *bigeminum* der Rinder in Deutschland. **Kossel**, H., **Schütt**, [J. W.], **Weber**, A., **Miesner**, [H.]. Berlin, Arb. Gesundheitsamt, **20**, 1903, (1-77, mit 3 Taf.).

## MASTIGOPHORA.

**Dangeard**, P. A. Contribution à l'étude des Diplozoaires. Paris, C.-R. Acad. sci., **136**, 1903, (769-771).

## FLAGELLATA.

## GENERAL.

**Lemmermann**, E[rnst]. *Flagellatae*, Chlorophyceae, Coccophaeales und Silicoflagellatae. [In: Nordisches Plankton. Lfg. 2.] Kiel u. Leipzig, 1903, (XXI 1-XXI 40).

**Prowasek**, S. Flagellatenstudien. Anhang: Fibrilläre Strukturen der Vorticellinen. Arch. Protistenkunde, Jena, **2**, 1903, (195-212, mit 2 Taf.).

**Schat**, P. Weitere Mitteilungen über Surra [eine durch ein *Trypanosoma* verursachte Rinderkrankheit]. (Holländisch) Arch. Java Suiker., Soerabaya, **11**, 1903, (49-67, mit 2 Taf.).

**Schilling**. Dritter Bericht über die Surra-Krankheit der Rinder und Pferde im Schutzgebiete Togo. Centralbl. Bakt., Jena, Abt. 1, **33**, Originale, 1903, (184-189).

**Steuer**, A. Ueber das Vorkommen von Coccolithophoriden im Golf von Triest. (Mitt. aus d. zool. Stat. Triest. No. 7.) Zool. Anz., Leipzig, **27**, 1903, (129-131).

## SPECIAL.

*Bodo lacertae* in lizards. **Galli-Valerio**, B. Centralbl. Bakt., Jena, Abt. 1, **35**, Originale, 1903, (86).

—— *ovatus* n. sp. **Moroff**, T. Arch. Protistenkunde, Jena, **3**, 1903, (69-106, mit 2 Taf.).

*Cercomonas gallinae* dans l'homme. **Galli-Valerio**, B. Centralbl. Bakt., Jena, Abt. 1, **35**, Originale, 1903, (86).

*Coccolithophora*. **Solger**, F. Natw. Wochenschr., Jena, **18**, 1903, (529-533).

*Codonoea gracilis* n. sp. Massachusetts. **Calhoun**, G. N. Washington, D.C., Bull. U. S. Fish Com., **21**, (1901), 1902, (423, fig. 8).

*Crithidia* nn. spp. parasites de l'intestin des insectes. **Léger**, L. Arch. Protistenkunde, Jena, **2**, 1903, (185-188).

*Cryptomonas pelagica* n. sp. Lohmann, H. Wiss. Meeresunters., Kiel, (N.F.), 7, (87, pl. I, fig. 16).

*Dimastigamoeba* nn. spp. Moroff, T. Arch. Protistenkunde, Jena, 3, 1903, (77-79, pl. XII).

*Eutrochophora sulcatum*, Kernteilung. Frowasak, S. l.c. 2, 1903, (325-328).

*Eucomonas socialis* n. sp. Moroff, T. l.c. 3, 1903, (80, 81, pl. VII, figs. 7 a-d).

*Euglena quartana* n. sp. Moroff, T. l.c. (96-103).

*Eutryptia* sp. aus dem Canale grande von Triest. Steurer, A. l.c. (126-137).

*Gymnodinium gracile* Bergh var. *sphaerica* n. var. Massachusetts. Calkins, G. N. Washington, D.C., Bull. U. S. Fish Com., 21, (1901), 1902, (413-468, with text fig.).

*Herpetomonas* nn. spp. parasites de l'intestin des insectes. Léger, L. Arch. Protistenkunde, Jena, 2, 1903, (180-189).

*Heteronema tremulum* n. sp. Zacharias, O. Plön, ForschBer. biol. Stat., 10, 1903, (270).

*Mallomonas fastigata* n. sp. Zacharias, O. l.c. (259).

*Mastigamoeba* nn. spp. Moroff, T. Arch. Protistenkunde, Jena, 3, 1903, (70-75).

\_\_\_\_\_ *simplex* n. sp. Massachusetts. Calkins, G. N. Washington, D.C., Bull. U. S. Fish Com., 21, (1901), 1902, (422, fig. 7).

*Menoidium falcatum* n. sp. Zacharias, O. Plön, ForschBer. biol. Stat., 10, 1903, (270).

*Monas*, asexual reproduction. Greeley, A. W. Chicago, Ill., Dec. Pub. Univ. Chic., (Ser. 1), 10, 1903, ([71]-77, with text fig.).

*Phacomonas* n. gen., *P. pelagica* n. sp. Lohmann, H. Wiss. Meeresunters., Kiel, (N.F.), 7, Abt. Kiel, 1903, (66, pl. I, figs. 10, 11).

*Polytoma uvella*, Conjugationsprozessen. Frowasak, T. Arch. Protistenkunde, Jena, 2, 1903, (205-206).

*Rhabdosphaera stylifer* im Golf von Triest. Steurer, A. Zool. Anz., Leipzig, 27, 1903, (130).

(x 2-9053)

*Rhynchomonas marina* n. sp. Lohmann, H. Wiss. Meeresunters., Kiel, (N. F.), 7, Abt. Kiel, 1903, (48).

*Salpingoeca appendiculariae* n. sp. Lohmann, H. l.c. (47).

*Trachelomonas* nn. spp. Palmer, T. Philadelphia, Pa., Proc. Acad. Nat. Sci., 54, 1902, (791-795, with pl.).

*Trichomonas caviae*, sporulation. Galli-Valerio, B. Centralbl. Bakt., Jena, Abt. 1, 35, Originale, 1903, (87).

*Trypanoplasma cyprini* n. sp., aus *Cyprinus carpio*. Flehn, M. Arch. Protistenkunde, Jena, 3, 1903, (175-180, mit 1 Taf.).

*Trypanosoma* in der Menschen- und Tierpathologie, sowie vergleichende Trypanosomenuntersuchungen. Rabinowitsch, L. und Kempner, W. l.c. 34, Originale, 1903, (804-822, mit 1 Taf.).

\_\_\_\_\_ giant form discovered in the blood of bovines. Lingard, A. l.c. 35, Originale, 1903, (234-238, mit 1 Taf.).

\_\_\_\_\_ sp. dans *Myoxus avellarii*. Galli-Valerio, B. l.c. (88).

\_\_\_\_\_ sp. de *Anguilla vulgaris*. Sabrasès, [J.] et Muratet, [L.]. Bordeaux, Actes soc. linn., (sér. 6), 7, 1902, (Proc. verb. LXXXII-LXXXIII, CXXIV-CXXVIII, av. 1 pl.).

\_\_\_\_\_ *brucei*, *T. evansi*, *T. equinum* (trypanosomes du nagana, surra et cadéras) constituent trois entités morbides distinctes. Laveran, A. et Mesnil, F. Paris, C.-R. Acad. sci., 136, 1903, (1529-1532).

\_\_\_\_\_ *castellani*, Schlafkrankheit durch. Castellani, A. Centralbl. Bakt., Jena, Abt. 1, 35, Originale, 1903, (62-67, mit 1 Taf.).

\_\_\_\_\_ *gambiense*, *T. sanguinis*, occurrence and description and 3 nn. spp. Dutton, J. E. and Todd, J. L. Rep. Trypanosomiasis Exp. to Senegambia, London, 1903, (36, 50-54).

\_\_\_\_\_ *theileri*, propagé par deux Hippobosques du Transvaal. Laveran, A. Paris, C.-R. soc. biol., 55, 1903, (242-243).

*Volvox*. Amöben als Parasiten. Mollsch, H. Berlin, Ber. D. bot. Ges., 21, 1903, (20-23, mit 1 Taf.).

\_\_\_\_\_ phototaxis. Holmes, S. J. Wood's Holl, Mass., Mar. Biol. Lab. Bull. 4, 1903, (319-326).

## DINOFLAGELLATA.

*Achradina* n. gen., *A. pulchra* n. sp. Lohmann, H. Wiss. Meeresunters., Kiel, (N.F.), 7, Abt. Kiel, 1903, (64).

*Agrosphaera* n. gen., *A. pellucida* n. sp. Mediterranean. Lo Bianco, S. Mitt. zool. Stat. Neapel, Berlin, 16, 1903, (226).

*Cladopyxis setifera* n. sp. Lohmann, H. Wiss. Meeresunters., Kiel, (N.F.), 7, Abt. Kiel, 1903, (64).

*Glenodinium* n. spp. Zacharias, O. Plön, ForschBer. biol. Stat., 10, 1903, (290-292).

\_\_\_\_\_ *compressa* n. sp. Massachusetts. Calkins, G. N. Washington, D.C., Bull. U. S. Fish Com., 21, (1901), 1902, (430, fig. 21).

*Gymnodinium* sp. [as principal element in the "red current"]. Nishikawa, T. Dobuts. Z., Tokyo, 15, 1903, (347-353).

*Multicilia lacustris* et ses flagellées. Penard, E. Rev. Suisse Zool., Genève, 11, 1903, (123-149, av. 1 pl.).

\_\_\_\_\_ *palustris* n. sp. Penard, E. Arch. Protistenkunde, Jena, 2, 1903, (283-304).

*Peridinium truncatum* n. sp. Zacharias, O. Plön, ForschBer. biol. Stat., 10, 1903, (290-292).

## INFUSORIA.

## GENERAL.

Aleksandrova, V. A. u. Istomina, N. A. Beobachtungen an Infusorien [Wirkung des Salamandergiftes; einige Wirkungen der Induktionsschläge. (Russ.) St. Petersburg, Trav. Soc. Nat., XXXIV, 1, 1903, (Protok. No. 4-5), (156-157), deutsches Rés., (159-160).

Bortolotti, C. . . . Opalinine . . . del lombrico: sviluppo, propagazione. Mon. zool. ital., Firenze, 13, 1902, (185-204, con fig.).

Enriques, [Paolo]. Adattamento degli Infusori Marini alla vita nell'acqua dolce. l.c. (supplement), (49-50).

\_\_\_\_\_ Ricerche osmotiche sugli Infusori. Roma, Rend. Acc. Lincei, (Ser. 5), 11, 1902, (340-347).

\_\_\_\_\_ Ricerche osmotiche sui Protozoi delle infusioni. l.c. (392-397).

Hickson, G. J. The Infusoria or Corticata Heterokaryota. Section L in Lankester's Treatise on Zoology, pt. I, ii, (361-426, 97 text figs.). [Reviews] Nature, London, 68, 1903, (618); Irish Nat., Dublin, 12, 1903, (242-243).

Renault, B. Sur quelques nouveaux Infusoires fossiles. Autun, Bul. soc. hist. nat., 1903, (Proc.-verb., 25-27, av. 1 pl.).

Rosale, E. Die Reaktion einiger Infusorien auf einzelne Induktionsschläge. Diss. Leipzig. Jena (Fischer), 1902, (31). 23 cm.

## ACINETARIA.

*Lernaeophrya* n. gen., *L. capitata* n. sp. parasite sur *Cordylophora lacustris*. Perez, P. Paris, C.-R. soc. biol., 55, 1903, (98-100, av. fig.).

*Podophrya gracilis* n. sp. Massachusetts. Calkins, G. N. Washington, D.C., Bull. U. S. Fish Com., 21, (1901), 1902, (463).

*Staurophrya elegans*. Zacharias, O. Plön, ForschBer. biol. Stat., 10, 1903, (312-314).

## CILIATA.

## GENERAL.

Issel, R. Ancistridi del Golfo di Napoli. Studio monografico sopra una nuova famiglia di Cigliati, commensali di molluschi marini. Mitt. zool. Stat. Neapel, Berlin, 16, 1903, (63-108, mit 3 Taf.).

## SPECIAL.

*Ancistrum* nn. spp. Golfo di Napoli. Issel, R. Mitt. zool. Stat. Neapel, Berlin, 16, 1903, (63-108).

*Balantidium* nn. spp. aus asiatischen Anuren. Benzenberger, E. Arch. Protistenkunde, Jena, 3, 1903, (148-154); Zool. Anz., Leipzig, 26, 1903, (597-599).

\_\_\_\_\_ (*Paramoecium*) *coli*, Pathologie. Krimenko, W. Beitr. path. Anat., Jena, 33, 1903, (281-301, mit 2 Taf.).

*Boveria*, Conjugation, Regeneration und Theilung. **Stevens**, N. M. Arch. Protistenkunde, Jena, 3, 1903, (1-43, mit 6 Taf.).

— *stevensi* n. sp. Golfo di Napoli. **Issel**, R. Mitt. zool. Stat. Neapel, Berlin, 16, 1903, (93).

*Chilodon dentatus* parasite de l'homme. **Guérin**, J. Paris, C.-R. soc. biol., 55, 1903, (245-246).

— *notamoibos* n. sp. **Magnitskij**, R. S. (Russ.) Moskva, Dnev. Zool. Otd. Imp. Obšč. Nub. jest., III, 5, 1903, (25-27, mit Taf.). 35 cm.

*Codonella relicta* n. sp. des Asow'schen und Aralischen Meeres. **Minkiewitsch**, R. K. Taschent, Izv. Turk. Otd. Russ. Geogr. Obsc., III, livr. 3, 1903, (43-46).

*Dileptus*, Encystierung. **Prowasek**, S. Arch. Protistenkunde, Jena, 3, 1903, (64-68).

*Lembus infusionum* n. sp. Massachusetts. **Calkins**, G. N. Washington, D.C., Bull. U. S. Fish Com., 21, (1901), 1902, (446).

*Leptodesmus* n. gen., *L. tenellus* n. sp. **Zacharias**, O. Plön, ForschBer. biol. Stat., 10, 1903, (271, pl. II, fig. 9).

*Licnophora*, Conjugation, Regeneration und Theilung. **Stevens**, N. M. Arch. Protistenkunde, Jena, 3, 1903, (1-43, mit 6 Taf.).

*Mesodinium cinctum* n. sp. Massachusetts. **Calkins**, G. N. Washington, D.C., Bull. U. S. Fish Com., 21 (1901), 1902, (436).

*Nyctotherus* nn. spp. aus asiatischen Anuren. **Bessenberger**, E. Arch. Protistenkunde, Jena, 3, 1903, (141-148); Zool. Anz., Leipzig, 26, 1903, (597-599).

*Opalina* nn. spp. aus asiatischen Anuren. **Bessenberger**, E. Arch. Protistenkunde, Jena, 3, 1903, (163-171).

*Paramoecium*, Fähigkeit Nahrung zu wählen. (Russ.) **Metallnikov**, S. I. St. Petersburg, Bull. labor. biol., V, 4, 1902, (23-26).

— reactions to chemical and electrical stimuli. **Greeley**, A. W. Science, New York, N.Y., (N. Ser.), 17, 1903, (980-982).

*Plagiospira* (= *Anoistrum*) n. gen., *P. crinita* n. sp. Golfo di Napoli. **Issel**, R. Mitt. zool. Stat. Neapel, Berlin, 16, 1903, (86, pl. V, figs. 21-23).

*Pluronema setigera* n. sp. Massachusetts. **Calkins**, G. N. Washington, D.C., Bull. U. S. Fish Com., 21 (1901), 1902, (445).

*Rhabdostyla congregata* n. sp. **Zacharias**, O. Plön, ForschBer. biol. Stat., 10, 1903, (201-222, mit Taf.).

*Spirostomum ambiguum*. Zur Kenntniss der Galvanotaxis. [Forts.] **Wallengren**, H. Zs. allg. Physiol., Jena, 2, 1903, (516-555).

*Stentor coerules*, die Höhe histologischer Differenzierung. **Neresheim**, E. R. Arch. Protistenkunde, Jena, 3, 1903, (305-324, mit 1 Taf.).

— — — — — Regeneration. **Prowasek**, S. l.c. 3, 1903, (44-59).

*Trachelius ovum*. **Hamburger**, C. l.c. 2, 1903, (445-474, mit 2 Taf.).

*Uronychia setigera* n. sp. Massachusetts. **Calkins**, G. N. Washington, D.C., Bull. U. S. Fish Com., 21, (1901), 1902, (487).

*Vorticella*, die Natur des Stieles. **Strehl**, K. Zs. wiss. Mikrosk., Leipzig, 20, 1903, (189).

— — — — — Natur des Stieles. **Brandes**, G. Zs. Natw., Stuttgart, 75, (1902), 1903, (459-460).

— *sinuata* n. sp. **Zacharias**, O. Plön, ForschBer. biol. Stat., 10, 1903, (239).

*Zorhamnium geniculatum* n. sp. Suffolk. **Ayrton**, W. London, J. R. Microsc. Soc., 1903, (504); London, J. Quek. Microsc. Cl., 8, 1903, (407-410, pl. 21).

UNCLASSIFIED BY THE SLIP  
MAKER.

*Apiosoma*, im Blute von Flecktyphuskranken. **Gotschlich**, E. Vorl. Mitt. D. med. Wochenschr., Berlin, 29, 1903, (329-331).

*Stylonychia mytilus*, Regeneration. **Prowasek**, S. Arch. Protistenkunde, Jena, 3, 1903, (60-63).

## INCERTAE SEDIS.

*Citoryctes vaccinae*. **Foa**, [A.]. Mon. zool. ital., Firenze, 13, 1902, (Supplemento), (34).

**Feinberg**, L. Ueber das Gewebe und die Ursache der Krebsgeschwülste. D. med. Wochenschr., Berlin, 29, 1903, (67-70).

**Nagri**, A. Beitrag zum Studium der Aetiologie der Tollwuth. Zs. Hyg., Leipzig, 43, 1903, (507-528, mit 2 Taf.).

**Sambon**, L. Sleeping-sickness in the light of recent knowledge. J. trop. Med., London, 6, 1903, (201-209, 2 text figs.).

**Schilling**. Die Bekämpfung der Tsetsefliegen-Krankheit und ihre wirtschaftliche Bedeutung. Vortrag. Tropenpflanzer, Berlin, 6, 1902, (616-625).

## LIST OF NEW GENERA AND SPECIES.

**Achradina** n. gen. [Dinoflagellata]. Lohmann. 106.

———— *pulchra*. Lohmann. 106.

**ACHROMATIUS** [Sporozoa].

———— *vesperuginis*. Dionisi. 38.

**ACTINOCEPHALUS** [Gregarinida].

———— *americanus*. Crawley. 34A.

**Actinocoma** n. gen. [Heliozoa]. Penard. 143.

———— *ramosa*. Penard. 143.

**Acutispora** n. gen. [Gregarinida]. Crawley. 34A.

———— *macrocephala*. Crawley. 34A.

**Agrosphaera** n. gen. [Dinoflagellata]. Lo Bianco. 104.

———— *pellucida*. Lo Bianco. 104.

**Allogromia** n. nom. [Foraminifera]. Rhumbler. 162.

———— *ovoides* n. nom. Rhumbler. 162.

**AMPHICORYNE** [Foraminifera].

———— *glabra*. Millett. 124.

**AMPHITREMA** [Foraminifera].

———— *lemanense*. Penard. 143.

**AMPHOROIDES** [Gregarinida].

———— *fontariae*. Crawley. 34.

**ANCISTRUM** [Ciliata].

———— *barbatum*. Issel. 78.

———— *compressum*. Issel. 78.

**ANCISTRUM** [Ciliata].

———— *cycliodiodes*. Issel. 78.

———— *subtruncatum*. Issel. 78.

———— *tellinae*. Issel. 78.

**ASTEROPHORA** [Gregarinida].

———— *cratoparis*. Crawley. 34.

**BALANTIDIUM** [Ciliata].

———— *giganteum*. Bezenberger. 12, 13.

———— *gracile*. Bezenberger. 12.

———— *helenae*. Bezenberger. 12, 13.

———— *rotundum*. Bezenberger. 12, 13.

**BALBIANA** [Sarcosporidia].

———— *siamensis*. Linstow, von. 102.

**BODO** [Flagellata].

———— *ovatus*. Moroff. 130.

**BOVERIA** [Ciliata].

———— *stevensi*. Issel. 78.

**CHILODON** [Ciliata].

———— *notamoibos*. Magnitzkij. 112A.

**CLADOPYXIS** [Dinoflagellata].

———— *setifera*. Lohmann. 106.

**Clathrella** n. gen. [Amoebaeae]. Penard. 144.

———— *foreli*. Penard. 144.

**COCCIDIUM** [Coccidiidea].

———— *faurci*. Moussu et Marotel. 131.

———— *jalinum*. Perroncito. 140.

———— *scyllii*. Drago. 41.

**COCHLIPODIUM** [Amoebaeae].

———— *opalinum*. Penard. 142.

**CODONELLA** [Ciliata].

———— *relicta*. Minkiewitsch. 126.

**CODONOECA** [Flagellata].

———— *gracilis*. Calkins. 22.

**CORNUSPIRA** [Foraminifera].

———— *primitiva*. Rhumbler. 162.

**CRITHIDIA** [Flagellata].

———— *campanulata*. Léger. 96.

———— *minuta*. Léger. 96.

**CRYPTODIFFUGIA** [Amoebaeae].

———— *turfacea*. Zacharias. 212.

**CRYPTOMONAS** [Flagellata].

———— *pelagica*. Lohmann. 106.

**CYCLAMMINA** [Foraminifera].

———— *le-beli*†. Herrmann. 73.

**DIMASTIGAMOERA** [Flagellata].

———— *agilis*. Moroff. 130.

———— *simplex*. Moroff. 130.

- DIMORPHINA** [Foraminifera].  
 — *lingulinoides*. Millett. 124.
- DIPLOGROMIA** n. nom. [Foraminifera].  
 — Rhumbler. 162.
- DOLIOCTSTIS** [Gregarinida].  
 — *rhynceolli*. Crawley. 34.
- ECCOMONAS** [Flagellata].  
 — *socialis*. Moroff. 130.
- EUGLENA** [Flagellata].  
 — *quartana*. Moroff. 130.
- ECESFORA** [Gregarinida].  
 — *lucani*. Crawley. 34.
- FISSURINA** [Foraminifera].  
 — *bicaudata* var. *tricaudata*.  
 — n. var. Silvestri. 182.  
 — *biconica*. Silvestri. 182.  
 — *bradyi*. Silvestri. 182.  
 — *cucullata*. Silvestri. 182.  
 — *quadricostulata* var. *parvula*  
 — n. var. Silvestri. 182.  
 — — var. *sexcostulata*  
 — n. var. Silvestri. 182.  
 — *schlichti*. Silvestri. 182.
- FUSULINA** [Foraminifera].  
 — *alternans*. Schellwien. 172.
- GIGADUCTUS** n. gen. [Gregarinida].  
 — Crawley. 34a.  
 — *parvus*. Crawley. 34a.
- GLENODINIUM** [Dinoflagellata].  
 — *apiculatum*. Zacharias. 213.  
 — *compressa*. Calkins. 22.  
 — *lemmermanni*. Zacharias. 213.
- GREGARINA** [Gregarinida].  
 — *boletophagi*. Crawley. 34.  
 — *calverti*. Crawley. 34.  
 — *discaeli*. Crawley. 34.  
 — *elaterae*. Crawley. 34.  
 — *harpali*. Crawley. 34.  
 — *ovalis*. Crawley. 34.  
 — *xylopinii*. Crawley. 34.
- GYMNODINIUM** [Flagellata].  
 — *gracile* var. *sphaerica* n. var.  
 — Calkins. 22.
- HERPETOMONAS** [Flagellata].  
 — *gracilis*. Léger. 96.  
 — *lesnei*. Léger. 96.
- HETERONEMA** [Flagellata].  
 — *tremulum*. Zacharias. 212.
- HIRMOCYSTIS** [Gregarinida].  
 — (?) *ovalis*. Crawley. 34.
- HISTOSPORIDIUM** n. gen. [Sporozoa].  
 — Feinberg. 52.  
 — *carcinomatum*. Feinberg. 52.
- HOPLORHYNCHUS** [Gregarinida].  
 — *scolopendras*. Crawley. 34a.
- HYALOSPHERIA** [Amoebae].  
 — *inconspicua*. West. 201.  
 — *platystoma*. West. 201.
- LAGENA** [Foraminifera].  
 — *marginulinoides*. Silvestri. 182.  
 — *montagui*. Silvestri. 182.  
 — *sphaerula*. Silvestri. 182.
- LAGUNCULINA** n. nom. [Foraminifera].  
 — Rhumbler. 162.
- LEGERINA** n. gen. [Coccidiidae].  
 — Jaquemot. 79.
- LEMBUS** [Ciliata].  
 — *infusionum*. Calkins. 22.
- LEPTODESMUS** n. gen. [Ciliata]. Zacharias. 212.  
 — *tenellus*. Zacharias. 212.
- LERNAEOPHYA** n. gen. [Acinetaria].  
 — Pérez. 147.  
 — *capitata*. Pérez. 147.
- MALLOMONAS** [Flagellata].  
 — *fastigata*. Zacharias. 212.
- MARSUPIINA** n. nom. [Foraminifera].  
 — Rhumbler. 162.  
 — *schultzei* n. nom. Rhumbler. 162.
- MASTIGAMOERA** [Flagellata].  
 — *limax*. Moroff. 130.  
 — *polypacuolata*. Moroff. 130.  
 — *radicula*. Moroff. 130.  
 — *simplex*. Calkins. 22.
- MENODINIUM** [Flagellata].  
 — *falcatum*. Zacharias. 212.
- MESODINIUM** [Ciliata].  
 — *cinctum*. Calkins. 22.
- MILLETTELLA** n. nom. [Foraminifera].  
 — Rhumbler. 162.
- MULTICILIA** [Dinoflagellata].  
 — *palustris*. Penard. 143.
- NOSEMA** [Myxosporidia].  
 — *geophili*. Crawley. 35.
- NUCLEARIA** [Heliozoa].  
 — *caulescens*. Penard. 142.  
 — *conspicua*. West. 201.
- NYCTOTHERUS** [Ciliata].  
 — *macropharyngeus*. Bezenberger. 12, 13.  
 — *magnus*. Bezenberger. 12.
- OPALINA** [Ciliata].  
 — *coracoides*. Bezenberger. 12.

- OPALINA** [Ciliata].  
 ——— *lanceolata*. Bezenberger. 12.  
 ——— *lata*. Bezenberger. 12.  
 ——— *longa*. Bezenberger. 12.  
 ——— *macronucleata*. Bezenberger. 12.  
**PAMPHAGUS** [Foraminifera].  
 ——— *hirsutus*. Pénard. 142.  
**PERIDINIUM** [Dinoflagellata].  
 ——— *truncatum*. Zacharias. 213.  
**PHACOMONAS** n. gen. [Flagellata]. Lohmann. 106.  
 ——— *pelagica*. Lohmann. 106.  
**PIROPLASMA** [Haemosporidia].  
 ——— *donovani*. Laveran et Mesnil. 92.  
**FLAGIOSPIRA** n. gen. [Ciliata]. Issel. 78.  
 ——— *crinita*. Issel. 78.  
**PLEURONEMA** [Ciliata].  
 ——— *setigera*. Calkins. 22.  
**PODOPHYA** [Acinetaria].  
 ——— *gracilis*. Calkins. 22.  
**POLYCARYUM** [Sporozoa].  
 ——— *laeve*. Stempel. 186.  
**POLYCHROMOPHILUS** [Sporozoa].  
 ——— *melanipherus*. Dionisi. 38.  
 ——— *murinus*. Dionisi. 38.  
**RHABDOSTYLA** [Ciliata].  
 ——— *congregata*. Zacharias. 211.  
**RAPHIDIOPHYTS** [Heliozoa].  
 ——— *brunii*. Penard. 142.  
**RHYNCHOMONAS** [Flagellata].  
 ——— *marina*. Lohmann. 106.  
**SALPINGOECA** [Flagellata].  
 ——— *appendiculariae*. Lohmann. 106.  
**SPHENODERIA** [Amoebae].  
 ——— *pulchella*. West. 201.  
**STENOPHORA** [Gregarinida].  
 ——— *spiroboli*. Crawley. 34.  
**TOLYPAMMINA** n. nom. [Foraminifera].  
 ——— Rhumbler. 162.  
 ——— *schaudinni* n. nom. Rhumbler. 162.  
**TRACHELOMONAS** [Flagellata].  
 ——— *minor*. Palmer. 138.  
 ——— *spiculifera*. Palmer. 138.  
 ——— *spinosa*. Palmer. 138.  
 ——— *vermiculosa*. Palmer. 138.  
 ——— *vestita*. Palmer. 138.  
**TRICHORHYNCHUS** [Gregarinida].  
 ——— *lithobii*. Crawley. 34a.  
**TRYPANOPLASMA** [Flagellata].  
 ——— *cyprini*. Plehn. 150.  
**TRYPANOSOMA** [Flagellata].  
 ——— *johnstoni*. Dutton & Todd. 46.  
 ——— *karyoseukton*. Dutton & Todd. 46.  
 ——— *mega*. Dutton & Todd. 46.  
**TURRITELLELLA** n. nom. [Foraminifera].  
 ——— Rhumbler. 162.  
**URONYCHIA** [Ciliata].  
 ——— *setigera*. Calkins. 22.  
**UVIGERINA** [Foraminifera].  
 ——— *auberiana* var. *glabra* n. var. Millett. 124.  
**VAGINULINA** [Foraminifera].  
 ——— *sulzensis*.† Hermann. 72.  
**VORTICELLA** [Ciliata].  
 ——— *sinuata*. Zacharias. 212.  
**WEBBINELLA** n. nom. [Foraminifera].  
 ——— Rhumbler. 162.  
**ZOOTHAMNIUM** [Ciliata].  
 ——— *geniculatum*. Ayrton. 9.

## 0603-0631 PORIFERA (OR SPONGIDA).

## TITLES.

**Arnesen, Emily.** Spongien von der norwegischen Küste. II. Bergens Mus. Aarb., 1903, No. 1, (30, with 7 pls). [0627 da 0631]. 1

**Beer, R.** Hornschwämme aus dem Pacific. Ergebnisse einer Reise nach dem Pacific, Schauinsland 1896/97. Zool. Jahrb., Jena, Abt. f. Syst., 19, 1903, (27-36). [0627 n 0631]. 2

**Bisram, A. Freiherr von.** Beiträge zur Kenntnis der Fauna des unteren Lias in der Val Solda. Geologisch-paläontologische Studien in den Comascher Alpen. I. Freiburg i. B., Ber. natf. Ges., 13, 1903, (116-214, mit 8 Taf.). [0231 0631 2231]. 3

**Cobb, John N.** The sponge fishery of Florida in 1900. Washington, D.C., Rep. U. S. Com. Fish., 1902, 1903, (161-175, with 4 pl.). [0603 0627 gh]. 4

**Cotte, Jules.** Sur la présence du tyrosinase chez *Suberites domuncula*. Paris, C.-R. soc. biol., 55, 1903, (137-139). [0611 0631]. 5

Sur la présence du manganèse et du fer chez les éponges. Paris, C.-R. soc. biol., 55, 1903, (139-141). [0611]. 6

**Garstev, V. P.** Bericht über eine Reise zur Untersuchung der Evertebratenfauna des Baikal-Sees im Sommer 1900 u. 1901. (Russ.) St. Petersburg, Trd. Troick-Kiächt. Otd. Russ. Geogr. Obsč., v. 2, 1902, [1903], (27-48, mit 1 Karte). [0627 1227 1827 2027 2227 2627 ca 0631 1231 1831 2031 2231 2631]. 7

**Görlich, Wilhelm.** Zur Kenntnis der Spermatogenese bei den Poriferen und Cölenteraten. Zool. Anz., Leipzig, 27, 1903, (64-70). [0615 0815]. 8

Weiteres über die Spermatogenese bei den Poriferen und Cölenteraten. Zool. Anz., Leipzig, 27, 1903, (172-174). [0615 0815]. 9

**Hill, W. v. Jukes-Browne, A. J.**

**Iijima, Isao.** Studies on the Hexactinellida. Contribution III. *Placosoma*, a new euplectellid; *Leucopsacidae* and *Caulophacidae*. Tokyo, J. Coll. Sci., 18, Art. 1, 1903, (1-124, with 8 pls.). [0607 0615 0627 ee 0631]. 10

**Jukes-Browne, A. J.** On the Zones of the Upper Chalk in Suffolk. London, Proc. Geol. Ass., 18, 1903, (85-94, pl. XVI). [1027 de 2027 de 0627 de 5427 de 0827 de]. 11

and **Hill, W.** The Cretaceous Rocks of Britain. Vol. II. The Lower and Middle Chalk of England. Mem. geol. Surv. U. K., London, 1903, (568, with 8 pls.). [0627 de 0427 de 2027 de 2227 de]. 12

**Kirkpatrick, B.** Descriptions of South African Sponges. Pts. II, III. Cape Town, Marin. Invest., 2, 1903, (171-180, with 1 pl., 233-264, pls. V, VI). [0627 fg 0631]. 13

**Lendenfeld, R[obert] von.** Eine biologische Notiz über *Spongilla fragilis* Leidy. Arch. Natg., Berlin, 69, Bd 1, 1903, (181-182, mit 1 Taf.). [0615 0631]. 16

Tetraxonia. (Das Tierreich, hrsg. v. F. E. Schulze, Lfg 19.)



Berlin (R. Friedländer & S.), 1903, (XV + 168). 26 cm. 8,40 M. [0631]. 17

**Leon, N.** *Prophysema haeckelii* [n. sp.]. Zool. Anz., Leipzig, 26, 1903, (418-419). [0631]. 18

**Lundbeck, Will.** Porifera (Pars I) *Homorhaphidae* and *Heterorhaphidae*. The Danish Ingolf-Expedition Vol. 6, Nr. 1; published at the cost of the Government by the direction of the Zoological Museum of the University. Kjöbenhavn, 1902, (1-108, 19 pls.). 33 cm. [0607 0627 0631]. 19

Die Bezeichnung der Spongiennadeln und Anderes. Im Anschluss an Prof. v. Lendenfeld's Referat über meine Spongienarbeit. Zool. Anz., Leipzig, 26, 1903, (390-392). [0603 0607]. 20

**Petch, W.** Marine zoology at Filey. Naturalist, London, 1903, (351). [0627 de 4827 de 1827 de 2027 de 2627 de 2227 de 5427 de 1027 de]. 21

**Preiwisch, Josef.** Kalkschwämme aus dem Pacific. Ergebnisse einer Reise nach dem Pacific, Schauinsland 1896-97. Zool. Jahrb., Jena, Abt. f. Syst., 19, 1903, (9-26, mit 3 Taf.). [0631 0627 n.]. 22

**Raisz, Miss C. A.** The formation of Chert and its micro-structures in some Jurassic Strata. London, Proc. Geol. Ass., 18, 1903, (71-82, pls. XIV and XV). [0627 de 0631]. 23

**Rowe, A. W.** The zones of the White Chalk of the English Coast. London, Proc. Geol. Ass., 18, 1903, (1-51, pls. I-XIII); [review by Jukes-Browne]. Geol. Mag., London, [4], 10, 1903, (309-313). [0827 de 1027 de 1031 2027 de 0627 de]. 24

**Schulze, Franz Eilhard.** *Caulophacus arcticus* (Armauer Hansen) and *Calycosoma gracile* F. E. Sch. nov. spec. Berlin, Abh. Ak. Wiss., 1903, (1-22, mit 2 Taf.). 27 cm. [0631]. 25

**Sollas, I.** On *Haddonella topsenti*, gen. et sp. n., the structure and development of its pithed fibres. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (557-563, pls. XXVIII, XXIX). [0607 0631]. 26

**Thiele, Joh.** Beschreibung einiger unzureichend bekannten monaxonen Spongien. Arch. Natg., Berlin, 69,

Bd 1, 1903, (375-398, mit 1 Taf.). [0631]. 27

**Thiele, Joh.** Kieselchwämme von Ternate. II. Frankfurt a. M., Abh. Senckenb. Ges., 25, 1903, (932-968, mit 1 Taf.). [0627 ia 0631]. 28

**Topsent, E.** Zoologie, Spongiaires. In: Expédition antarctique belge. Résultats du voyage du S.Y. "Belgica" en 1897-1898-1899. Rapports scientifiques. Anvers (Imprimerie J. E. Buschmann), 1901, 1902, (54, av. 6 pls. hors texte). 16 fr. [0603 0607 0627 k o 0631]. 29

**Urban, F.** Ueber das Dermal epithel der Kalkspongien. Verh. Ges. D. Natf., Leipzig, 74, (1903), II, 1, 1903, (159). [0607]. 30

**Weltner, W[ilhelm].** Bericht über die Leistungen in der Spongiologie während der Jahre 1899-1901. Arch. Natg., Berlin, 62, Bd 2, H. 3, 1896, [1903], (181-258). [0603]. 31

## 0603 COMPREHENSIVE AND GENERAL WORKS.

**Cobb, John M.** The sponge fishery in Florida in 1900. Washington, D.C., Rep. U.S. Com. Fish., 1902, 1903, (161-175, with 4 pls.).

**Lundbeck, Will.** Die Bezeichnung der Spongiennadeln und Anderes. Im Anschluss an Prof. v. Lendenfeld's Referat über meine Spongienarbeit. Zool. Anz., Leipzig, 26, 1903, (390-392).

**Topsent, E.** Zoologie, Spongiaires. In: Expédition antarctique belge. Résultats du voyage du S.Y. "Belgica" en 1897-1898-1899. Rapports scientifiques. Anvers (Imprimerie J. E. Buschmann), 1901-1902, (54, av. 6 pls. hors texte).

**Weltner, W[ilhelm].** Bericht über die Leistungen in der Spongiologie während der Jahre 1899-1901. Arch. Natg., Berlin, 62, Bd 2, H. 3, 1896, [1903], (181-258).

## 0607 STRUCTURE.

### GENERAL.

**Iijima, Isao.** [Structure, &c., of Hexactinellida (*Euplectellidae*, *Leucosporacidae*, and *Caulophacidae*)]. Tokyo,

J. Coll. Sci., 18, Art. 1, 1903, (1-124, with 8 pls.).

**Lundbeck, William.** Porifera (Pars I) *Homorhaphidae* and *Heterorhaphidae*. The Danish Ingolf-Expedition, Vol. 6, Nr. 1; published at the cost of the Government by the Direction of the Zoological Museum of the University. Kjöbenhavn, 1902, (1-108, 19 pls.). 33 cm.

**Sollas, I.** On *Haddonella topsenti*, gen. et sp. n., the structure and development of its pithed fibres. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (557-563, pls. XXVIII-XXIX).

**Topsent, E.** Zoologie, Spongiaires. In: Expédition antarctique belge. Résultats du voyage du S.Y. "Belgica" en 1897-1898-1899. Rapport scientifiques. Anvers (Imprimerie J. E. Buschmann), 1901-1902, (54, av. 6 pls. hors texte). 16 fr.

#### TEGUMENT.

**Urban, F.** Ueber das Dermal epithel der Kalkspongien. Verh. Ges. D. Natf., Leipzig, 74, (1902), II, 1, 1903, (159).

#### INTERNAL SKELETAL STRUCTURES.

**Lundbeck, Will.** Die Bezeichnung der Spongiennadeln und Anderes. Im Anschluss an Prof. v. Lendenfeld's Referat über meine Spongienarbeit. Zool. Anz., Leipzig, 26, 1903, (390-392).

### 0611 PHYSIOLOGY.

#### CHEMICAL PHYSIOLOGY.

**Cotte, Jules.** Sur la présence du tyrosinase chez *Suberites domuncula*. Paris, C.-R. soc. biol., 55, 1903, (137-139).

— Sur la présence du manganeuse et du fer chez les éponges. l.c. (139-141).

### 0615 DEVELOPMENT.

#### GENERAL.

**Njima, Isao.** [Development of *Leucopaeus orthodocus*.] Tokyo, J. Coll. Sci., 18, Art. 1, 1903, (1-124, with 8 pls.).

#### ASEXUAL REPRODUCTION.

**Lendenfeld, Robert** von. Eine biologische Notiz über *Spongilla fragilis* Leidy. Arch. Natg., Berlin, 69, Bd 1, 1903, (181-182, mit 1 Taf.).

#### SPERMATOGENESIS.

**Görlich, Wilhelm.** Zur Kenntnis der Spermatogenese bei den Poriferen und Cölenteraten. Zool. Anz., Leipzig, 27, 1903, (64-70).

— Weiteres über die Spermatogenese bei den Poriferen und Cölenteraten. l.c. (172-174).

### 0627 GEOGRAPHICAL DISTRIBUTION.

d EUROPE.

da SCANDINAVIA.

**Arnesen, Emily.** Spongien von der norwegischen Küste. II. Bergens Mus. Aarb., 1903, No. 1, (30, with 7 pls.).

**Lundbeck, William.** Porifera (Pars 1). *Homorhaphidae* and *Heterorhaphidae*. The Danish Ingolf Expedition Vol. 6, No. 1; published at the cost of the Government by the direction of the Zoological Museum of the University. Kjöbenhavn, 1902, (1-108, 19 pls.). 33 cm.

de BRITISH ISLANDS.

**Jukes-Browne, A. J.** On the zones of the Upper Chalk in Suffolk. London, Proc. Geol. Ass., 18, 1903, (85-94, pl. XVI).

— and **Hill, W.** The Cretaceous Rocks of Britain. Vol. II. The Lower and Middle Chalk of England. Mem. Geol. Surv. U.K., London, 1903, (568, with 8 pls.).

**Fetch, T.** Marine Zoology at Filey. Naturalist, London, 1903, (351).

**Raisin, Miss C. A.** The formation of Chert and its micro-structures in some Jurassic Strata. London, Proc. Geol. Ass., 18, 1903, (71-82, pls. XIV-XV).

**Rowe, A. W.** The zones of the White Chalk of the English Coast. l.c. (1-51, pls. I-XIII); [review by Jukes-Browne], Geol. Mag., London, [4], 10, 1903, (309-313).

## e ASIA.

## ea ASIATIC RUSSIA.

**Gariaev, V. P.** Bericht über eine Reise zur Untersuchung der Evertebratenfauna des Baikal-See's im Sommer 1900 u. 1901. (Russ.) St. Petersburg, Trd. Troick-Klacht. Otd. Russ. Geogr. Obsč., V, 2, 1902, [1903], (27-48, mit 1 Karte).

## ec JAPANESE ISLANDS.

**Ijima, Isao.** Studies on Hexactinellida. Contrib. III. Tokyo, J. Coll. Sci., 18, Art. 1, 1903, (1-124, with 8 pls.).

## f AFRICA.

## fg SOUTH AFRICA.

**Kirkpatrick, R.** Description of South African Sponges. Pt. II. Cape Town, Marin. Invest., 2, 1903, (171-180, with 1 pl.).

## g NORTH AMERICA.

## gh SOUTH EASTERN UNITED STATES.

**Cobb, John N.** The sponge fishery of Florida in 1900. Washington, D.C., Rep. U. S. Com. Fish., 1902, 1903, (161-175, with 4 pls.). Separate. 23.2 cm.

## i AUSTRALASIA.

## ia NEW GUINEA WITH ISLANDS EASTWARD OF WALLACE'S LINE.

**Thiele, Joh.** Kieselschwämme von Ternate. II. Frankfurt a. M., Abh. Senckenb. Ges., 25, 1903, (932-968, mit 1 Taf.).

## k ARCTIC.

**Topsent, E.** Zoologie, Spongiaires. In: Expédition antarctique belge. Résultats du voyage du S. Y. "Belgica" en 1897-1898-1899. Rapports scientifiques. Anvers (Imprimerie J. E. Buschmann), 1901-1902, (54, av. 6 pls. hors texte). 16 fr.

## ka ARCTIC OCEAN.

**Lundbeck, Will[iam].** Porifera (Pars 1) *Homorhaphidae* and *Heterorhaphidae*. The Danish Ingolf-Expedition Vol. 6, Nr. 1; published at the cost of the Government by the direction of the Zoological Museum of the University. Kjöbenhavn, 1902, (1-108, 19 pls.). 33 cm.

## n PACIFIC.

**Baar, R.** Hornschwämme aus dem Pacific. Ergebnisse einer Reise nach dem Pacific, Schauinsland 1896-97. Zool. Jahrb., Jena, Abt. f. Syst., 19, 1903, (27-36).

**Freiwisch, Josef.** Kalkschwämme aus dem Pacific. Ergebnisse einer Reise nach dem Pacific, Schauinsland 1896-97. l.c. (9-26, mit 3 Taf.).

## o ANTARCTIC.

**Topsent, E.** Zoologie, Spongiaires. In: Expédition antarctique belge. Résultats du voyage du S. Y. "Belgica" en 1897-1898-1899. Rapports scientifiques. Anvers (Imprimerie J. E. Buschmann), 1901-1902. (54, av. 6 pls. hors texte). 16 fr.

## 0631 TAXONOMY AND SYSTEMATIC.

## GENERAL.

**Gariaev, V. P.** . . . Evertebratenfauna des Baikal-Sees (Russ.) St. Petersburg, Trd. Troick-Klacht. Otd. Russ. Geogr. Obsč., V, 2, 1902, [1903], (27-48, av. 1 carte).

**Kirkpatrick, R.** Description of South African Sponges. Pt. III. Cape Town, Marin. Invest., 2, 1903, (233-264, pls. V-VI).

**Raisin, Miss C. A.** The formation of Chert and its micro-structures in some Jurassic Strata. London, Proc. Geol. Ass., 18, 1903, (71-82, pls. XIV-XV).

**Topsent, E.** Zoologie, Spongiaires. In: Expédition antarctique belge, Résultats du voyage du S. Y. "Belgica" en

1897-1898-1899. Rapports scientifiques. Anvers (Imprimerie J. E. Baschmann), 1901-1902, (54, av. 6 pls. hors texte). 16 fr.

## CALCAREA.

### GENERAL.

**Freiwisch, J.** Kalkschwämme aus dem Pacific. Ergebnisse einer Reise nach dem Pacific, Schauinsland 1896-97. Zool. Jahrb., Jena, Abt. f. Syst., **19**, 1903, (9-26, mit 3 Taf.).

### SPECIAL.

*Ebnerella compressa* n. sp. Pacific. **Freiwisch, J.** Zool. Jahrb., Jena, Abt. f. Syst., **19**, 1903, (19-23, pl. IV, figs. 13-18).

*Leucetta* nn. spp. Pacific. **Freiwisch, J.** l.c. (10-14, pl. II, figs. 1-6, pl. III, fig. 7).

*Syeandra* nn. spp. Pacific. **Freiwisch, J.** l.c. (15-19, pl. III, fig. 8, pl. IV, figs. 9-12).

## HEXACTINELLIDA.

*Calycosoma gracile* n. sp. **Schulze, F. E.** Berlin, Abh. Ak. Wiss., **1903**, (14-21, pl. II).

*Caulophacus arcticus* (Armauer Hansen). **Schulze, F. E.** l.c. (1-14, pl. I). 27 cm.

—— *lotifolium* n. sp. **Ijima, I.** Tokyo, J. Coll. Sci., **18**, Art. 1, 1903, (87-96, 112, pl. VII).

*Chaunoplectella* described, *C. spinifera* n. sp. **Ijima, I.** l.c. (53-71).

*Eudictyon* n. gen., *E. steinmanni* n. form. Alps. **Bis tram, A.** Freiburg i. B., Ber. natf. Ges., **13**, 1903, (184-186).

*Leucopaeus orthodocus*, *L. scoliodocus* described. **Ijima, I.** Tokyo, J. Coll. Sci., **18**, Art. 1, 1903, (34-52, 110, pl. III, figs. 14-37).

*Placosoma* n. gen., *P. paradictyum* n. sp. **Ijima, Isao.** l.c. (2-28, 109, pls. I, II).

*Sympagella anomala* n. sp. **Ijima, I.** l.c. (97-108, 112, pl. VIII).

## DEMOSPONGIAE.

### GENERAL.

**Lendenfeld, Robert von.** Tetraxonina. (Das Tierreich, hrsg. v. F. E. Schulze, Lfg 19.) Berlin (R. Friedländer & S.), 1903, (XV + 168). 26 cm. 8,40 M.

## TETRACTINELLIDA.

*Discodermia natalensis* n. sp. S. Africa. **Kirkpatrick, R.** Cape Town, Marin. Invest., **2**, 1903, (172, pl. IV, figs. 2, 2 a-k, 3, 3 a-d).

*Lithobactrum* n. gen., *L. forte* n. sp. S. Africa. **Kirkpatrick, R.** l.c. (175, pl. IV, figs. 5, 5 a-g).

*Microscleroderma* n. gen., *M. hirsutum* n. sp. S. Africa. **Kirkpatrick, R.** l.c. (173).

*Monanthus* n. gen., *M. plumosus* n. sp. S. Africa. **Kirkpatrick, R.** l.c. (176, pl. IV, figs. 6, 6 a-e, 7, 7 a-b).

*Triptolemus incertus* n. sp. S. Africa. **Kirkpatrick, R.** l.c. (178, pl. IV, figs. 4 and 4 a-f).

## MONAXONIDA.

### GENERAL.

**Thiele, J.** Beschreibung einiger unzureichend bekannten monaxonen Spongien. Arch. Natg., Berlin, **69**, Bd 1, 1903, (375-398, mit 1 Taf.).

**Lundbeck, Will[iam].** Porifera (Pars 1) Homorhaphidae and Heterorhaphidae. The Danish Ingolf-Expedition Vol. 6, Nr. 1; published at the cost of the Government by the direction of the Zoological Museum of the University. Kjöbenhavn, 1902, (1-108, 19 pls.).

### SPECIAL.

*Agelas cavernosa* n. sp. **Thiele, J.** Frankfurt a. M., Abh. Senckenb. Ges., **25**, 1903, (963).

*Azinyssa telhyoides* n. sp. S. Africa. **Kirkpatrick, R.** Cape Town, Marin. Invest., **2**, 1903, (245, pl. V, fig. 12; pl. VI, fig. 8 a-b).

*Bienna humilis* n. sp. **Thiele, J.** Frankfurt a. M., Abh. Senckenb. Ges., **25**, 1903, (944).

*Bubaris reptans* n. sp. S. Africa.  
**Kirkpatrick, R.** Cape Town, Marin.  
Invest., 2, 1903, (248, pl. V, fig. 14;  
pl. VI, fig. 15 a-c).

*Chalina spatula* n. sp. **Lundbeck, W.**  
The Danish Ingolf Expedition, Vol. 6,  
No. 1, Kjöbenhavn, 1902, (11, 12, pl. II,  
fig. 3, pl. VIII, figs. 8, 9).

*Clathria mollis* n. sp. S. Africa.  
**Kirkpatrick, R.** Cape Town, Marin.  
Invest., 2, 1903, (249, pl. V, fig. 15;  
pl. VI, fig. 16 a-b).

*Coppatias baculifer* n. sp. S. Africa.  
**Kirkpatrick, R.** l.c. (239, pl. V, fig. 5;  
pl. VI, fig. 5 a-b).

*Desmacella hamifera* n. sp. **Lundbeck, W.**  
The Danish Ingolf Expedition.  
Vol. 6, No. 1, Kjöbenhavn, 1902, (93-95,  
pl. VII, figs. 4-6, pl. XVII, fig. 1, a-l).

*Desmacidon clavellata* n. sp. Norway.  
**Arnesen, E.** Bergens Mus. Aarb., 1903,  
No. 1, (13, 14, pl. II, fig. 2, pl. IV,  
fig. 4).

*Echinochalina* n. gen. = *Ophlita-*  
*spongia australiensis* Ridley. **Thiele, J.**  
Frankfurt a. M., Abh. Senckenb. Ges.,  
25, 1903, (961-962).

*Esperella plumosa* n. sp. Norway.  
**Arnesen, E.** Bergens Mus. Aarb., 1903,  
No. 1, (11, pl. II, fig. 1.).

*Esperiopsis schmidtii* n. sp. Norway.  
**Arnesen, E.** l.c. (8, 9).

*Gelliodes* nn. spp. **Lundbeck, W.**  
The Danish Ingolf Expedition Vol. 6,  
No. 1. Kjöbenhavn, 1902, (75-78, pl. V,  
figs. 3, 4, pl. XIV, figs. 3-6).

— nn. spp. **Thiele, J.**  
Frankfurt a. M., Abh. Senckenb. Ges., 25,  
1903, (942-943, pl. XXVIII, figs. 7, 8).

*Gellius* nn. spp. Norway. **Arnesen, E.**  
Bergens Mus. Aarb., 1903, No. 1,  
(7-8).

— nn. spp. **Lundbeck, W.**  
The Danish Ingolf-Expedition. Vol. 6,  
No. 1. Kjöbenhavn, 1902, (64-71,  
pl. VI, figs. 5-8, pl. XIII, figs. 1-12).

— nn. spp. **Thiele, J.**  
Frankfurt a. M., Abh. Senckenb. Ges.,  
25, 1902, (941-942).

*Halichondria* nn. spp. **Thiele, J.**  
l.c. (935-936).

— nn. spp. **Lundbeck, W.**  
The Danish Ingolf-Expedition Vol. 6,

No. 1. Kjöbenhavn, 1902, (27-31,  
pl. II, fig. 7, pl. III, figs. 1, 2, pl. X,  
3-8).

*Hamacantha* nn. spp. **Lundbeck, W.**  
l.c. (99-108, pl. V, figs. 6-9, pl. VII,  
figs. 2, 3, pl. XVIII, figs. 1-3, pl. XIX,  
figs. 1-6).

*Hamigera stipitata* n. sp. Norway.  
**Arnesen, E.** Bergens Mus. Aarb., 1903,  
No. 1, (20, 21).

— *ternatensis* n. sp. **Thiele, J.**  
Frankfurt a. M., Abh. Senckenb. Ges.,  
25, 1903, (952).

*Histoderma natalense* n. sp. S.  
Africa. **Kirkpatrick, R.** Cape Town,  
Marin. Invest., 2, 1903, (250, pl. V,  
fig. 17; pl. VI, fig. 18a-e).

*Hymedesmia prostrata* n. sp. **Thiele, J.**  
Frankfurt a. M., Abh. Senckenb. Ges.,  
25, 1903, (955).

*Hymeniacidon caliculatum* n. sp.  
var. *osculatum* n. var. S. Africa.  
**Kirkpatrick, R.** Cape Town, Marin.  
Invest., 2, 1903, (241, 242, pl. V, fig. 8;  
pl. VI, figs. 12, 13).

*Hymeraphia* nn. spp. **Thiele, J.**  
Frankfurt a. M., Abh. Senckenb. Ges.,  
25, 1903, (956, 957).

*Kalastrella* n. gen., *K. vasiformis* n.  
sp. var. *minor* n. var. S. Africa.  
**Kirkpatrick, R.** Cape Town, Marin.  
Invest., 2, 1903, (238, 239, pl. V, figs.  
3, 4, pl. VI and figs. 3a-f, 4a-c).

*Latrunculia natalensis* n. sp. S.  
Africa. **Kirkpatrick, R.** l.c. (237,  
pl. V, fig. 2; pl. VI, fig. 2a-e).

*Mycale* nn. spp. **Thiele, J.** Frankfurt  
a. M., Abh. Senckenb. Ges., 25, 1903,  
(950).

*Myzilla grata* n. sp. **Thiele, J.** l.c.  
(954).

*Pachychalina schmidtii* n. sp.  
**Lundbeck, W.** The Danish Ingolf-  
Expedition. Vol. 6, No. 1. Kjöbenhavn,  
1902, (5-7, pl. I, figs. 1, 2, pl. VIII,  
figs. 1-3).

*Petrosia* nn. spp. **Thiele, J.** Frank-  
furt a. M., Abh. Senckenb. Ges., 25,  
1903, (938, 939).

*Phakellia microcephora* n. sp.  
S. Africa. **Kirkpatrick, R.** Cape Town,  
Marin. Invest., 2, 1903, (242, pl. V, fig.  
9; pl. VI, fig. 9a-d).

*Phloeodictyon* nn. spp. **Lundbeck**, W. The Danish Ingolf-Expedition. Kjöbenhavn, 1902, (57-62, pl. VI, figs. 9-13, pl. XII, figs. 6-7, 10).

———— *eumitum* n. sp. S. Africa. **Kirkpatrick**, R. Cape Town, Marin. Invest., 2, 1903, (253, pl. V, fig. 18; pl. VI, fig. 19a-b).

*Placospongia labyrinthica* n. sp. S. Africa. **Kirkpatrick**, R. l.c. (236, pl. V, figs. 1, 1a, 1b; pl. VI, fig. 1a-f).

*Plumohalichondria papillosa* n. sp. Norway. **Arnesen**, E. Bergens, Mus. Aarb., 1903, No. 1, (19-20).

*Protoechmidia* nn. spp. **Thiele**, J. Frankfurt a. M., Abh. Senckenb. Ges., 25, 1903, (939).

*Reniera* nn. spp. **Lundbeck**, W. The Danish Ingolf-Expedition. Kjöbenhavn, 1902, (39-49, pl. II, fig. 6; pl. V, figs. 1, 2, 5; pl. XI, figs. 5, 8, 13-16).

*Rhizochalina crassispicula* (?) n. sp. **Thiele**, J. Frankfurt a. M., Abh. Senckenb. Ges., 25, 1903, (936).

*Sigmazinnella* nn. spp. S. Africa. **Kirkpatrick**, R. Cape Town, Marin. Invest., 2, 1903, (246, pl. V, fig. 13; pl. VI, fig. 14a-c).

*Siphonochalina claviformis* n. sp. **Thiele**, J. Frankfurt a. M., Abh. Senckenb. Ges., 25, 1903, (940).

———— *mollicula* n. sp. **Lundbeck**, W. The Danish Ingolf-Expedition. Vol. 6, No. 1. Kjöbenhavn, 1902, (15, 16, pl. VIII, figs. 12-14).

*Spongilla fragilis* Leidy, eine biologische Notiz. **Lendenfeld**, R. von. Arch. Natg., Berlin, 69, Bd 1, 1903, (181-182, mit 1 Taf.).

*Stylostichon involutum* n. sp. S. Africa. **Kirkpatrick**, R. Cape Town, Marin. Invest., 2, 1903, (250, pl. V, fig. 16; pl. VI, fig. 17a-e).

*Suberites domuncula*, présence du tyrosinase. **Cotte**, J. Paris, C.-R. soc. biol., 55, 1903, (137-139).

*Syringella gorgonioides* n. sp. S. Africa. **Kirkpatrick**, R. Cape Town, Marin. Invest., 2, 1903, (244, pl. V, fig. 11; pl. VI, fig. 11a-b).

*Tedania* nn. spp. **Thiele**, J. Frankfurt a. M., Abh. Senckenb. Ges., 25, 1903, (946-947).

*Tethya magna* n. sp. S. Africa. **Kirkpatrick**, R. Cape Town, Marin. Invest., 2, 1903, (240, pl. V, fig. 6; pt. VI, fig. 6a-d).

*Toxochalina ternatensis* n. sp. **Thiele**, J. Frankfurt a. M., Abh. Senckenb. Ges., 25, 1903, (940).

*Trachya nuda* n. sp. S. Africa. **Kirkpatrick**, R. Cape Town, Marin. Invest., 2, 1903, (241, pl. V, fig. 7; pl. VI, fig. 7a-b).

*Tragosia infundibuliformis* Johnst. var. *natalensis* n. var. S. Africa. **Kirkpatrick**, R. l.c. (243, pl. V, fig. 10; pl. VI, fig. 10a-c).

*Thrinacophora incrustans* n. sp. **Thiele**, J. Frankfurt a. M., Abh. Senckenb. Ges., 25, 1903, (932-968, mit 1 Taf.).

*Yvesia* nn. spp. Norway. **Arnesen**, E. Bergens Mus. Aarb., 1903, No. 1, (17-18).

## KERATOSA.

### GENERAL.

**Baar**, R. Hornschwämme aus dem Pacific. Ergebnisse einer Reise nach dem Pacific, Schaulinsland 1896-1897. Zool. Jahrb., Jena, Abt. f. Syst., 19, 1903, (27-36).

### SPECIAL.

*Coscinoderma concentricum* n. sp. S. Africa. **Kirkpatrick**, R. Cape Town, Marin. Invest., 2, 1903, (254, pl. VI, figs. 19, 19a).

*Haddonella* n. gen., *H. topsenti* n. sp. Torres Straits. **Sollas**, J. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (557-563, pls. XXVIII, XXIX).

*Psammopemma inordinatum* n. sp. S. Africa. **Kirkpatrick**, R. Cape Town, Marin. Invest., 2, 1903, (257, pl. VI, fig. 21, 21a).

*Stelospongia flava* n. sp. Pacific. **Baar**, R. Zool. Jahrb., Jena, Abt. f. Syst., 19, 1903, (27-36).

### INCERTAE SEDIS.

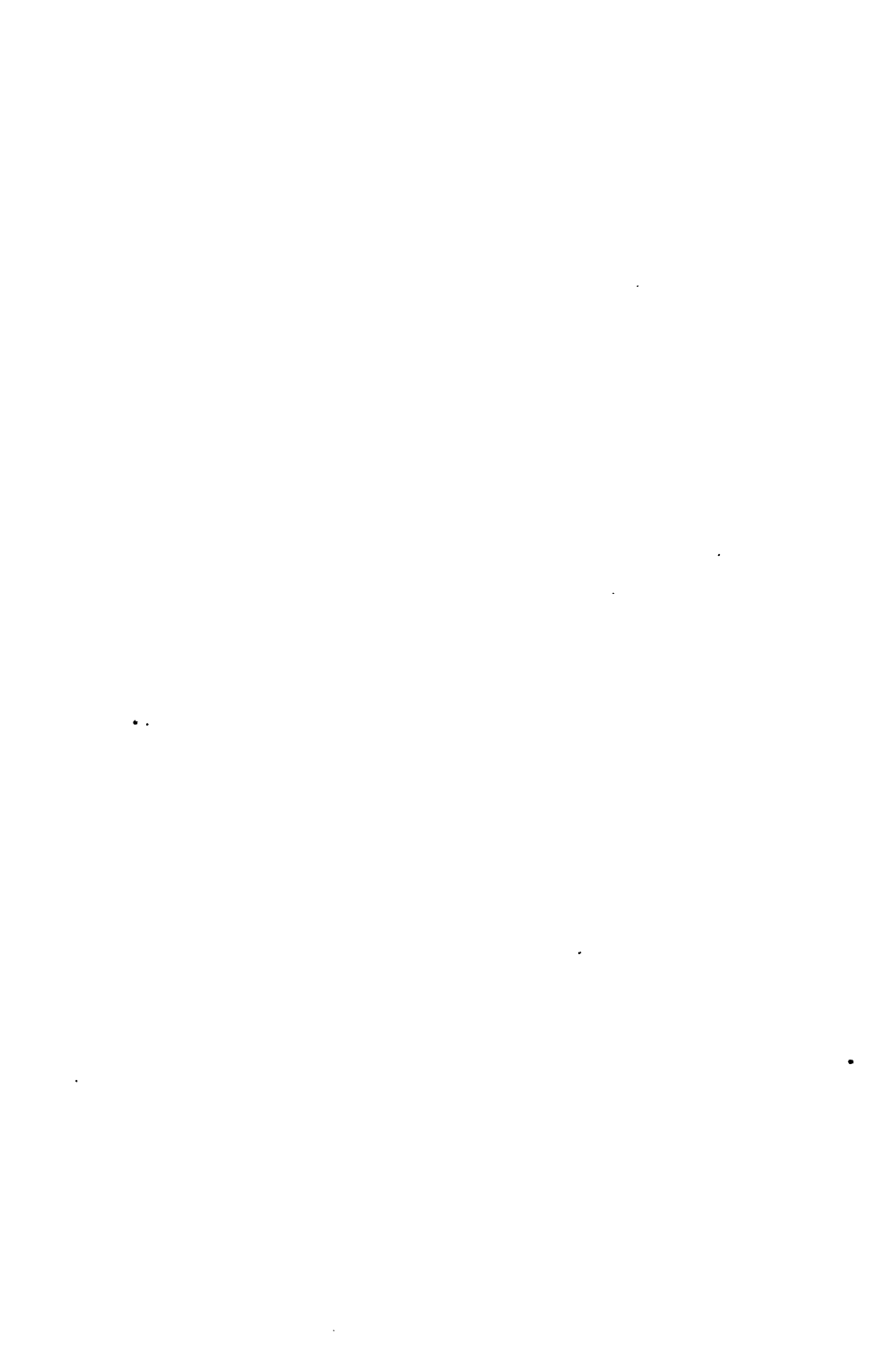
*Prophysema haeckelii* [n. sp.]. **Leon**, N. Zool. Anz., Leipzig, 26, 1903, (418-419).

## LIST OF NEW GENERA AND SPECIES.

- AGELAS** [Monaxonida].  
 — *cavernosa*. Thiele. 28.  
**AXINYSSA** [Monaxonida].  
 — *tethyoides*. Kirkpatrick. 14.  
**BIEMNA** [Monaxonida].  
 — *humilis*. Thiele. 28.  
**BUBARIS** [Monaxonida].  
 — *reptans*. Kirkpatrick. 14.  
**CALYOSOMA** [Hexactinellida].  
 — *gracile*. Schulze. 25.  
**CAULOPHACUS** [Hexactinellida].  
 — *lotifolium*. Ijima. 10.  
**CHAUNOPLECTELLA** [Hexactinellida].  
 — *spinifera*. Ijima. 10.  
**CHALINA** [Monaxonida].  
 — *spatula*. Lundbeck. 19.  
**CLATHRIA** [Monaxonida].  
 — *mollis*. Kirkpatrick. 14.  
**COPPATIAS** [Monaxonida].  
 — *baculifer*. Kirkpatrick. 14.  
**COSCINODERMA** [Keratosa].  
 — *concentricum*. Kirkpatrick. 14.  
**DESMACELLA** [Monaxonida].  
 — *hamifera*. Lundbeck. 19.  
**DESMACIDON** [Monaxonida].  
 — *clavellata*. Arnesen. 1.  
**DISCODERNIA** [Tetractinellida].  
 — *natalensis*. Kirkpatrick. 13.  
**EBNERELLA** [Calcarea].  
 — *compressa*. Preiwisch. 22.  
**Echinochalina** n. gen. [Monaxonida].  
 Thiele. 28.  
**ESPERELLA** [Monaxonida].  
 — *plumosa*. Arnesen. 1.  
**ESPERMOPSIS** [Monaxonida].  
 — *schmidtii*. Arnesen. 1.  
**Eudictyon** † n. gen. [Hexactinellida].  
 Bistram. 3.  
 — *steinmanni* † n. f. Bistram. 3.  
**GELLIODES** [Monaxonida].  
 — *consimilis*. Lundbeck. 19.  
 — *hamata*. Thiele. 28.  
 — *porosa*. Thiele. 28.  
 — *plexa*. Lundbeck. 19.  
**GELLIUS** [Monaxonida].  
 — *asper*. Arnesen. 1.  
 — *irregularis*. Thiele. 28.  
 — *luridus*. Lundbeck. 19.  
 — *massa*. Arnesen. 1.  
 — *microtoxa*. Lundbeck. 19.  
**GELLIUS** [Monaxonida].  
 — *primitivus*. Lundbeck. 19.  
 — *proximus*. Lundbeck. 19.  
 — *truncatus*. Thiele. 28.  
**Haddonella** n. gen. [Keratosa]. Sollas. 26.  
 — *topseuti*. Sollas. 26.  
**HALICHONDRIA** [Monaxonida].  
 — *colossea*. Lundbeck. 19.  
 — *? difficilis*. Lundbeck. 19.  
 — *fragilis*. Thiele. 28.  
 — *incrustans*. Thiele. 28.  
 — *osculum*. Lundbeck. 19.  
 — *tenuiderma*. Lundbeck. 19.  
**HAMACANTHA** [Monaxonida].  
 — *bowerbanki*. Lundbeck. 19.  
 — *implicans*. Lundbeck. 19.  
**HAMIGERA** [Monaxonida].  
 — *stipitata*. Arnesen. 1.  
 — *ternatensis*. Thiele. 28.  
**HISTODERMA** [Monaxonida].  
 — *natalense*. Kirkpatrick. 14.  
**HYMEDESMIA** [Monaxonida].  
 — *prostrata*. Thiele. 28.  
**HYMENIACIDON** [Monaxonida].  
 — *caliculatum*. Kirkpatrick. 14.  
 — *caliculatum* var. *osculatum* n. var. Kirkpatrick. 14.  
**HYMERAPHIA** [Monaxonida].  
 — *distincta*. Thiele. 28.  
 — *similis*. Thiele. 28.  
**Kalastrella** n. gen. [Monaxonida]. Kirkpatrick. 14.  
 — *vasiformis*. Kirkpatrick. 14.  
 — *vasiformis* var. *minor* n. var. Kirkpatrick. 14.  
**LATRUNCULLA** [Monaxonida].  
 — *natalensis*. Kirkpatrick. 14.  
**LEUCETTA** [Calcarea].  
 — *sambucus*. Preiwisch. 22.  
 — *schausinslandi*. Preiwisch. 22.  
**Lithobactrum** n. gen. [Tetractinellida].  
 Kirkpatrick. 13.  
 — *forte*. Kirkpatrick. 13.  
**Microscleroderma** n. gen. [Tetractinellida].  
 Kirkpatrick. 13.  
 — *hirsutum*. Kirkpatrick. 13.  
**Monanthus** n. gen. [Tetractinellida].  
 Kirkpatrick. 13.  
 — *plumosus*. Kirkpatrick. 13.  
**MYCALE** [Monaxonida].  
 — *armata*. Thiele. 28.  
 — *moluccensis*. Thiele. 28.

- MYXILLA** [Monaxonida].  
 ——— *grata*. Thiele. 28.
- PACHYCHALINA** [Monaxonida].  
 ——— *schmidtii* Lundbeck. 19.
- PETROSIA** [Monaxonida].  
 ——— *cancellata*. Thiele. 28.  
 ——— *strongylata*. Thiele. 28.
- PHAKELLIA** [Monaxonida].  
 ——— *microzephora*. Kirkpatrick. 14.
- PHLOEODICTYON** [Monaxonida].  
 ——— *eumitum*. Kirkpatrick. 14.  
 ——— *irregulare*. Lundbeck. 19.  
 ——— *tuber*. Lundbeck. 19.
- PLACOSOMA** n. gen. [Hexactinellida].  
 ——— *Ijima*. 10.  
 ——— *paradietium*. Ijima. 10.
- PLACOSPONGIA** [Monaxonida].  
 ——— *labyrinthica*. Kirkpatrick. 14.
- PLEUROMALICHONDRIA** [Monaxonida].  
 ——— *papillosa*. Arnesen. 1.
- PROPHYSEMA** [Incertae sedis].  
 ——— *haeckelii*. Leon. 18.
- PROTOSCHMIDTIA** [Monaxonida].  
 ——— *expansa*. Thiele. 28.  
 ——— *pulvillus*. Thiele. 28.
- PSAMMOPEMMA** [Keratosa].  
 ——— *inordinatum*. Kirkpatrick. 14.
- RENIERA** [Monaxonida].  
 ——— *calumus*. Lundbeck. 19.  
 ——— *folium*. Lundbeck. 19.  
 ——— *heterofibrosa*. Lundbeck. 19.  
 ——— *hyalina*. Lundbeck. 19.  
 ——— *laza*. Lundbeck. 19.  
 ——— *parenchyna*. Lundbeck. 19.
- RHIZOCHALINA** [Monaxonida].  
 ——— *crassispicula*. Thiele. 28.
- SIGMAXINELLA** [Monaxonida].  
 ——— *arborea*. Kirkpatrick. 14.  
 ——— *incrustans*. Kirkpatrick. 14.
- SIPHONOCALINA** [Monaxonida].  
 ——— *claviformis*. Thiele. 28.  
 ——— *mollicula*. Lundbeck. 19.
- STELOSPONGIA** [Keratosa].  
 ——— *flava*. Baar. 2.
- STYLOSTICHON** [Monaxonida].  
 ——— *involutum*. Kirkpatrick. 14.
- STYANDRA** [Calcarea].  
 ——— *parvula*. Preiwisch. 22.  
 ——— *staurifera*. Preiwisch. 22.
- SYMPAGELIA** [Hexactinellida].  
 ——— *anomala*. Ijima. 10.
- SYRINGELLA** [Monaxonida].  
 ——— *gorgonioides*. Kirkpatrick. 14.
- TEDANIA** [Monaxonida].  
 ——— *brevispiculata*. Thiele. 28.  
 ——— *coralliophila*. Thiele. 28.  
 ——— *maeandrica*. Thiele. 28.  
 ——— *reticulata*. Thiele. 28.
- THRINACOPHORA** [Monaxonida].  
 ——— *incrustans*. Thiele. 28.
- TOXOCHALINA** [Monaxonida].  
 ——— *ternatensis*. Thiele. 28.
- TETHYA** [Monaxonida].  
 ——— *magna*. Kirkpatrick. 14.
- TRACHYA** [Monaxonida].  
 ——— *nuda*. Kirkpatrick. 14.
- TRAGOSIA** [Monaxonida].  
 ——— *infundibuliformis*. Kirkpatrick. 14.
- TRIPTOLEMUS** [Tetractinellida].  
 ——— *incertus*. Kirkpatrick. 13.
- YVESIA** [Monaxonida].  
 ——— *lobata*. Arnesen. 1.  
 ——— *mammillata*. Arnesen. 1.





## 0303-0831 CŒLEENTERATA (OR CNIDARIA).

## TITLES.

- Aders**, Walter M. Beiträge zur Kenntnis der Spermatogenese bei den Cœlenteraten. Zs. wiss. Zool., Leipzig, **74**, 1903, (81-108, mit 2 Taf.). [0815 0831]. 1
- Arnold**, Ralph. The paleontology and stratigraphy of the marine Pliocene and Pleistocene of San Pedro, California. (Dissertation . . . Leland Stanford Junior University . . . degree . . . Ph. D.). [Reprinted from San Francisco, Mem. Cal. Acad. Sci., **3**], in Stanford University, Cal., Leland Stanford Jr. Univ., Hopkins Seaside Lab., Cont. Biol., No. **31**, 1903, (1-420, with pl.). [0227 gi 0231 0831 2031 2231]. 2
- Beardale**, A. E. The destruction of trout fry by Hydra. [*Hydra pallida* n. sp.] Washington, D.C., Bull. U. S. Fish Com., **22**, (1902), 1903, (155-160). [0060 5403 5419 0819 0831]. 3
- Bedot**, [Maur]. Recherches sur la *Bathyphysa grimaldii*. Arch. Sci. Phys., Genève, (sér. 4), **15**, 1903, (464-465). [0807 0831]. 4
- Beecher**, Charles E[merson]. Observations on the genus *Romingeria*. [Reprinted from the Amer. J. Sci., New Haven, Conn., **16**, 1903], (1-11, with 5 pl.). 23.1 cm. [0831]. 5
- Bell**, J. and **Kirkpatrick**. Guide to the Coral gallery. British Museum of Natural History. [Review], Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (132). [0803]. 6
- Bernard**, H. M. Catalogue of the Madreporarian Corals in the British Museum (Natural History). IV. The family *Poritidae*. i. The genus *Goniopora*. London, 1903, (viii + 206, 14 pls.). [0803 0831]. 7  
(x 2-9053)
- Billard**. De l'excrétion chez les hydroides. Paris, C.-R. Acad. sci., **137**, 1903, (340-342). [0811 0831]. 8
- Note sur les variations du *Plumularia halecoides* Alder. Bul. Muséum, Paris, **1903**, (57-62). [0823 0831]. 9
- Bourne**, G. C. Some new and rare corals from Funafuti. London, J. Linn. Soc. Zool., **29**, No. 187, 1903, (26-37, pls. V, VI). [0807 0827 nb 0831]. 10
- Broch**, Hjalmar. Die von dem norwegischen Fischereidampfer „Michael Sars“ in den Jahren 1900-1902 in dem Nordmeer gesammelten Hydroiden. Bergens Mus. Aarb., **1903**, No. 9, (14, 4 pls.). [0827 ka la 0831]. 11
- Brooks**, William Keith. On a new genus [*Dichotomia* n. gen.] of hydroid jelly-fishes. Philadelphia, Pa., Proc. Amer. Phil. Soc., **42**, 1903, (11-14, with 1 pl.). [0831]. 12
- Browne**, Edward. Report on some *Medusae* from Norway and Spitzbergen. Bergens Mus. Aarb., **1903**, No. 4, (36, with 5 pls.). [0827 da kd 0831]. 13
- Brüning**. *Hydra* und *Limnaea* im Aquarium. Natur u. Haus, Dresden, **11**, 1903, (135-138). [0819 0831 2219 2231]. 14
- Burchardt**, Eugen. Alcyonaceen von Thursday Island (Torres-Strasse) und von Amboina, II. Jena, Denkschr. med. Ges., **8**, 1903, (653-682, mit 4 Taf.). [0831 0827 ia]. 15
- Carlgren**, O. Ueber die Regeneration der Secanemonen. Helsingfors, Comptes rendus du Congrès des Naturalistes et Médecins du Nord tenu à Helsingfors du 7 au 12 Juillet 1902, **1903**, VI Section, (9-11). [0811 0831]. 16

**Carlgren, O.** Jahresbericht über die Anthozoen für die Jahre 1892 und 1893. Arch. Natg., Berlin, **62**, Bd 2, H. 3, 1896, [1903], (145-180). [0803]. 17

**Corfontaine, Paul.** Recherches expérimentales sur la régénération et l'hétéromorphose chez *Astroides calycularis* et *Pennaria cavolinii*. Arch. biol., Paris-Liège, **19**, 1902, (245-315, av. 2 pls.). [0811 0831]. 18

**Child, C. M.** Form-regulation in Coelentera and Turbellaria. Washington, D.C., Smithsonian Inst. Misc. Collect. Q. Issue, **45**, 1903, (134-143, with pl.). [0211 0811 1211 1231]. 19

Form - regulation in *Cerianthus*. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **5**, 1903, (239-260, 304-319, with text fig.); **6**, 1903, (1-11, with text fig.). [0211 0811 0831]. 20

**Clarke, Samuel Fessenden.** An Alaskan *Corymorpha*-like Hydroid. Washington, D.C., Smithsonian Inst., Nation. Mus. Proc., **26**, 1903, (953-958, with text fig.). Separate 24.3 cm. [0827 ga 0831]. 21

**Crossman, R. W. v. Weed, C. M.**

**Dacqué, Edgar.** Mittheilungen über den Kreidecomplex von Abu Roash bei Cairo. Palaeontographica, Stuttgart, **30**, II, 1903, (337-392, 3 Taf.). [0831 2031 2231]. 22

**Davydov, K. N.** Les résultats du voyage scientifique au Java et les autres îles de l'Archipel Malais. II. *Hydroctena salenskii* n. sp. (Etude morphologique sur un nouveau coelenteré pélagique.) St. Pétersbourg. Mém. Ac. Sc., (8 F.), **14**, No. 9, 1903, (16, av. 1 pl.). [0807 0831]. 23

**Duerden, J. E.** IV. Fissiparous gemmation. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (141-155, with 7 figs.). [0815]. 24

On the Actinian *Bunodoopsis globulifera* Verrill. London, Trans. Linn. Soc. Zool., (Ser. 2), **8**, 1903, (297-317, 2 pls.). [0807 0831]. 25

West Indian sponge-incrusting Actinians. [With bibliography.] New York, N.Y., Bull. Amer. Mus. Nat. Hist., **19**, 1903, (495-503, with 4 pls.). [0827, he 0831]. 26

**Ellis, Gertrude L. and Wood, Ethel M. R.** [Edited by Lapworth.] A monograph of British Graptolites. III. London, Monogr. Palaeont. Soc., **57**, 1903, (XXIX-LII, 103-134, pls. XIV-XIX). [0807 0827 de 0831]. 27

**Etheridge, R., jun.** *Fossopora*, a new genus of Palaeozoic Perforate Corals. Sydney, N.S.W., Rec. Austr. Mus., **5**, 1903, (16-19, with 2 pls.). [0831]. 28

**Felix, Johannes.** Studien über die korallenführenden Schichten der oberen Kreideformation in den Alpen und den Mediterrangebieten. TI I: Die Anthozoen der Gossaschichten in den Ostalpen. I. u. II. Hälfte. Palaeontographica, Stuttgart, **49**, 1903, (163-360, mit 9 Taf.). [0831]. 29

Verkieselte Korallen als Geschiebe im Diluvium von Schlesien und Mähren. Centralbl. Min., Stuttgart, **1903**, (561-577). [0831]. 30

**Fischel, Alfred.** Entwicklung und Organ-Differenzierung. Arch. Entw.-Mech., Leipzig, **15**, 1903, (679-750). [0215 0815]. 31

**Foellie, M.** The *Lithothamnion* of the Maldives and Laccadives [mentions corals on which *Lithothamnion* grows]. [Gardiner's] Fauna Maldive **1**, (160-471, pls. XXIV and XXV). [2019 0819 0831]. 32

**Fowler, G. H.** Contributions to our knowledge of the plankton of the Faeroe Channel. VIII. London, Proc. Zool. Soc., **1903**, **1**, (117-133, text-figs. 13-17). [0819 0827 da 0831 2615 2619 2631]. 33

**Gardiner, J. S.** The breaking-up of coral rock by organisms in the Tropics. London, Rep. Brit. Ass., **1902**, (654-655). [Prelim. Abstract], Nature, London, **66**, 1902, (641). [1019 1819 0819]. 34

Formation of the Maldives. London, Geog. J., **19**, 1903, (277-296, 12 figs.). [0819 0827 ma]. 35

The Maldivian and Laccadive groups, with notes on other coral formations in the Indian Ocean (continued). Fauna Maldive, **1**, (314-346, pls. XVI-XVII, text-figs. 74 and 75 (concluded); 376-423, pls. XIX-XXI). [0819 0827 ma]. 36

**Gardiner, J. S.** Lagoon deposits. I. General account. II. Report on certain deposits, by Sir J. Murray. Fauna Maldiva, 2, 1, (581-588, pl. XXXIV). [1819 0827 ma 2031 0831]. 37

— The origin of coral reefs as shown by the Maldives. Amer. J. Sci., New Haven, Conn., (Ser. 4), 16, 1903, (203-213). [0819 0827 ma]. 38

**Gill, E. L.** Note on the occurrence of Keisley Limestone-Pebbles in the red Sandstone-rocks of Peel (Isle of Man). London, Q. J. Geol. Soc., 59, 1903, (307-310). [2827 de 2027 de 1027 de 2227 de 0827 de]. 39

**Görlich, Wilhelm.** Zur Kenntnis der Spermatogenese bei den Poriferen und Coelenteraten. Zool. Anz., Leipzig, 27, 1903, (64-70). [0615 0815]. 40

— Weiteres über die Spermatogenese bei den Poriferen und Coelenteraten. Zool. Anz., Leipzig, 27, 1903, (172-174). [0615 0815]. 41

**Goodchild, J. G.** The Coelentera in relation to geological zones. Edinburgh, Proc. R. Physic. Soc., 15, 1903, (57-62). [0803]. 42

— Observations on the bathymetrical distribution of reef-building corals. Edinburgh, Proc. R. Physic. Soc., 15, 1903, (66-69). [0819]. 43

**Gordon, Maria M. O.** The geological structure of Monzoni and Fassa. Edinburgh, Trans. Geol. Soc., 8, 1903, (sp. part X + 180, with 18 pls., 2 maps and 33 text-figs.). [0827 dk 1027 dk 2027 dk]. 44

**Gravier, Ch.** Sur la Méduse du Victoria Nyanza. Paris, C.-R. Acad. sci., 137, 1903, (867-869). [0827 ff 0831]. 45

**Greene, George K.** Contribution to Indiana palaeontology. Part XI. New Albany, Ind., 1903, (98-109, with pl.). 22.8 cm. [0827 gg 0831 1031]. 46

— Contributions to Indiana palaeontology. Part XV. New Albany, Indiana, 1903, (146-155, with pl.). 22.8 cm. [0827 gg 0831 1027 gg 1031]. 47

**Günther, Konrad.** Die Samenreife bei *Hydra viridis*. Ein Beitrag zur Frage nach der Bedeutung des Nucleolus. (Vorläuf. Mitt.) Zool. Anz.,

Leipzig, 26, 1903, (628-630). [0815 0831]. 48

**Günther, R. T.** On the structure and affinities of *Menestira parasites* Krohn; with a revision of the classification of the *Cladonemidae*. Mitt. zool. Stat. Neapel, Berlin, 16, 1903, (35-62, mit 2 Taf.; 280). [0831 0819 2207 2219 2231]. 49

— Report on the Coelenterata from the intermediate waters of the N. Atlantic, obtained by Mr. George Murray during the cruise of the "Oceania" in 1898. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (420-430, pls. IX, X). [0827 la 0831]. 50

**Hall, T. S.** On the occurrence of *Monograptus* in New South Wales. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, 27, (1902), 1903, (654, 655, 1 text fig.). [0827 ie 0831]. 51

— On the occurrence of Graptolites in New South Wales. Nature, London, 67, 1903, (288). [0827 ie 0831]. 52

— The possibility of detailed correlation of Australian formations with those of the Northern Hemisphere. Presidential address, Melbourne. [Publication not named—recorded from separate copy.] (165-190). [0831]. 53

**Hargitt, Cha[rles] W[esley].** Synopsis of North American Invertebrates 14. Part 4. The *Scyphomedusae*. Amer. Nat., Boston, Mass., 37, 1903, (331-345). [0827 g 0831]. 54

— Regeneration in *Hydro-medusae*. Lincoln, Stud. Zool. Lab., Univ. Neb., No. 57, 1903, (32, with pl.). 23 cm. [0211 0811 0831]. 55

**Hentschel, Ernst.** Gorgonacea von Amboina und Thursday Island. Jena, Denkschr., med. Ges., 8, 1903, (643-652, mit 2 Taf.) [0831 0827 ia]. 56

**Henze, M.** Zur Chemie des Gorgonins und der Jodgorsäure. Hoppe-Seylers Zs. physiol. Chem., Strassburg, 38, 1903, (60-79). [0811]. 57

**Herdman, W. A.** The new biological station at Port Erin, being the 16th annual report of the Liverpool Marine Biology Committee. Liverpool, Trans. Biol. Soc., 17, 1903, (15-67). [2627 de 1227 de 1803 0827 de 5427 de 2227 de]. 58

**Hickson, S. J.** On the Coelenterata collected by Mr. C. Crossland in Zanzibar. I. *Ceratella minima* n. sp. London, Proc. Zool. Soc., **1903**, 1, (113-116). [0827 ff 0831]. 59

— The horny membrane of *Neohelia porcellana*. Nature, London, **67**, 1903, (344). [0807 0831]. 60

— [Presidential address.] Nature, London, **68**, 1903, (452-458). [0000 6003 4603 0803]. 61

— The Alcyonaria of the Maldives. I. The genera *Xenia*, *Telesto*, *Spongoidea*, *Nephthya*, *Paraspongoidea*, *Chironephthya*, *Siphonogorgia*, *Solenocaulon*, and *Melitodes*. [Gardiner's] Fauna Maldives II, 1, (473-502, pls. XXVI, XXVII). [0827 ma 0831]. 62

**Horst, R.** On a case of commensalism of a fish (*Amphiprion intermedius* Schleg.) and a large sea-anemone (*Discosoma spec.*). Leiden, Notes Mus. Jentink, **23**, 1903, (180-182). [5419 5431 0831 0819]. 63

**Jukes-Browne, A. J.** On the zones of the Upper Chalk in Suffolk. London, Proc. Geol. Ass., **18**, 1903, (85-94, 1 map). [1027 de 2027 de 0627 de 5427 de 0827 de]. 64

**Kassianow, N.** Ueber des Nervensystem der Alcyonarien. Bergens Mus. Aarb., **1903**, No. 6, (3). [0807 0831]. 65

**Kinkelin, Friedrich.** *Brooksella rhenana* n. sp. Das erste Medusenfossil aus dem Devon. Frankfurt a. M., Ber. Senckenb. Ges., **1903**, Tl 2, (89-93, mit 1 Taf.). [0831]. 66

**Kirkpatrick, R.** Notes on some Medusae from Japan. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (615-621, pl. XXXIII). [0827 ec 0831]. 67

— v. Bell, J.

**Kishinouye, Kamakichi.** On Japanese corals. [Six species of *Corallium* characterized.] (Japanese) Dobuts. Z., Tokyo, **15**, 1903, (103-106). [0803 0831]. 68

— *Corallium purillum* n. sp. described in brief. (Japanese) Dobuts. Z., Tokyo, **15**, 1903, (372). [0831]. 69

— Preliminary note on the *Coralliidae* of Japan. Zool. Anz., Leipzig, **26**, 1903, (623-626). [0831]. 70

**Krempt, Arm.** Sur un point de l'anatomie de quelques Hexacoralliaires. Paris, C.-R. Acad. sci., **136**, 1903, (1210-1212). [0807 0831]. 71

**Kükenthal, [Willy].** Ueber eine neue Nephthidengattung aus dem südatlantischen Ocean. Zool. Anz., Leipzig, **26**, 1903, (272-275). [0827 le 0831]. 72

— Versuch einer Revision der Alcyonarien. II. Die Familie der Nephthyiden. Tl 1. Zool. Jahrb., Jena, Abt. f. Syst., **19**, 1903, (99-172, mit 2 Taf.). [0831]. 73

**Lang, W. D.** On a fossiliferous bed in the Selbornian of Charmouth. Geol. Mag. London, [4], **10**, 1903, (388-392, 1 fig.). [0827 de 2027 de 2227 de 1827 de]. 74

**Maas, Otto.** Die Scyphomedusen der Siboga-expedition. Résultats des explorations zool., botan., océanogr., géol., entreprises aux Indes Néerl. or. 1899-1900, à bord du Siboga, sous le commandement de G. F. Tydeman publiés par Max Weber. (Hollandais) Livr. 10, Monogr. 11. Leide (E. J. Brill), 1903, (91, mit 12 Taf.). 33 cm. [0827 eg ia 0831]. 75

**Marchese, B.** Osservazioni sul *Tetraplatia volitans* (Busch). Messina (tip. dell' Epoca), 1902, (12, con 1 tav.). [0831]. 76

**Mathews, Albert [rescott].** Electrical polarity in the hydroids. Amer. J. Physiol., Boston, Mass., **8**, 1903, (294-299). [0811 0831]. 77

**May, Albert J.** A contribution to the morphology and development of *Corymorpha pendula* Ag. [With bibliography]. Amer. Nat., Boston, Mass., **37**, 1903, (578-599). [0807 0815 0831]. 78

**Moser, Fanny.** Die Ctenophoren der Siboga-Expedition. Résultats des explorations zool., botan., océanogr., géol., entreprises aux Indes Néerl. or. 1899-1900, à bord du Siboga, sous le commandement de G. F. Tydeman, publiés par Max Weber. (Hollandais) Livr. 11 Monogr. 12. Leide (E. J. Brill), 1903, (34, mit 4 Taf.). 33 cm. [0827 eg ia 0831]. 79

**Motz-Kossowska, M<sup>me</sup>.** Sur l'action morphogène de l'eau en mouvement sur les Hydriaires. Paris, C.-R. Acad. sci., **137**, 1903, (863-865). [0811 0831]. 80

- Murbach, L.** Egg laying in *Gonionema*. Science, New York, N.Y., (N. Ser.), **17**, 1903, (192). [0823 0831]. 81
- *Gonionema* versus "*Gonionema*." Science, New York, N.Y., (N. Ser.), **18**, 1903, (373-374). [0831]. 82
- and **Shearer, C.** On *Medusae* from the coast of British Columbia and Alaska. London, Proc. Zool. Soc., **1903**, 2, (164-192, pls. XVII-XXII). [0827 *gd* 0831]. 83
- Murray, Sir J. v. Gardiner, J. S.**
- Pearcy, F. G.** Notes on the marine deposits of the Firth of Forth, and their relation to its animal life. Glasgow, Trans. Nat. Hist. Soc., **6**, 1903, (217-251, with map.). [0427 *de* 2227 *de* 0827 *de* 2627 *de* 5427 *de* 1827 *de*]. 84
- Peebles, Florence.** Experiments in regeneration and in grafting of Hydrozoa [with bibliography]. [Reprinted from the Archiv für Entwicklungsmechanik der Organismen, **10**, 1900]. Bryn Mawr, Pa., Bryn Mawr Coll. Monogr. (Repr. Ser.), **4**, 1901, (1-51). [0211 0811 0831]. 85
- Pérez, Ch.** Sur une station du *Cordylopora lacustris*. Paris, C.-R. soc. biol., **55**, 1903, (98). [0819 0831]. 86
- Perkins, Henry Farnham.** The development of *Gonionema murbachii*. Philadelphia, Pa., Proc. Acad. Nat. Sci., **54**, 1902, [1903], (750-790, with pl.); [reprint], Dissertation, (Ph.D.), Johns Hopkins University. [0815 0831]. 87
- Petch, T.** Marine zoology at Filey. Naturalist, London, **1903**, (351). [0627 *de* 0827 *de* 1827 *de* 2027 *de* 2627 *de* 2227 *de* 5427 *de* 1027 *de*]. 88
- The Marine Fauna of the Humber District and the Holderness Coast. Hull, Trans. Sci. F. Nat. Cl., **3**, 1903, (27-41). [1027 *de* 2227 *de* 2627 *de* 0827 *de* 1827 *de*]. 89
- Pratt, Edith M.** The Alcyonaria of the Maldives. II. The genera *Sarcophytum*, *Lobophytum*, *Sclerophytum* and *Alcyonium*. [Gardiner's] Fauna Maldivæ, II, 1, (503-539, pls. XXVIII-XXXI). [0827 *ma* 0831]. 90
- Richet, Charles.** Des poisons contenus dans les tentacules des Actinies (congestine et thalassine). Paris, C.-R. soc. biol., **55**, 1903, (246-248). [0811 0831]. 91
- Rümer, Fritz.** Die Ctenophoren. (Fauna Arctica, **3**.) Jena, 1903, (85-90). [0827 *k*]. 92
- Roule, Louis.** Le Corail, son histoire. Messenger de Bruxelles, **1902**, (127). [0803]. 93
- Rowe, A. W.** The zones of the white chalk of the English coast. III. Devon, London, Proc. Geol. Ass., **18**, 1903, (1-51, pls. I-XIII); IV. Yorkshire, *ib.*, (193-296, pls. XVII-XL). [0627 *de* 2027 *de* 0827 *de* 1027 *de* 1031]. 94
- Schuchert, Charles.** On the Manlius formation of New York. Amer. Geol. Minneapolis, Minn., **31**, 1903, (160-178). [0227 *gg* 0831 2031]. 95
- On the faunal provinces of the middle Devonian of American and the Devonian coral sub-provinces of Russia, with two paleogeographic maps. Amer. Geol., Minneapolis, Minn., **32**, 1903, (137-162, with 2 pls.). [0827 *db g* 0831]. 96
- Shearer, C. v. Murbach, L.**
- Shrubsole, O. A.** On the probable source of some of the pebbles of the Triassic Pebble-beds of South Devon and of the Midland Counties. London, Q. J. Geol. Soc., **59**, 1903, (311-333). [0827 *de* 1827 *de* 2027 *de*]. 97
- Skorikov, A. S.** Zur Parasitologie der Störe. (Russ.) Vestn. rybopromysl., St. Petersburg, **1903**, 18, (63-82, mit 1 Taf.). [0819 1219 1419 5419]. 98
- Strandmark, J[ohan] E[dvard].** Lower Graptolite slate in Fågelsång, Scania. (Swedish) Stockholm, Geol. För. Förh., **23**, 1901, (548-556, pl. 17). [0831]. 99
- Thacher, H[enrietta] F.** A preliminary note on the absorption of the hydranths of hydroid polyps. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **4**, 1903, (96-98). [0811 0831]. 100
- Absorption of the hydranth in hydroid polyps. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **5**, 1903, (297-303). [0811 0831]. 101
- Thomson, J. A.** [Review of "Die organischen Regulationen-Vorbereitungen zu einer Theorie des Lebens," by Hans Driesch. Leipzig, 1901, (XV + 228). Nature, London, **67**, 1903, (50). [0822 0211]. 102

**Todd, R. A.** Notes on the Invertebrate fauna and fish-food of the bays between the Start and Exmouth. Plymouth, J. Mar. Biol. Ass., **6**, 1903, (541-561). [5027 de 2219 2227 de 2603 1827 de 1027 de 1019 0827 de 0819 0227 de 0060]. 103

**Tomes, R. F.** Description of a species of *Heterastraea* from the Lower Rhaetic of Gloucestershire. London, Q. J. Geol. Soc., **59**, 1903, (403-407, 2 figs.); [review], Nature, London, **68**, 1903, (142). [0827 de 0831]. 104

**Trinzi, Giulio.** Di una nuova specie di *Cyrtia gemmante* del Golfo di Napoli. Mitt. zool. Stat. Neapel, Berlin, **16**, 1903, (1-34, mit 1 Taf.). [0831 0815]. 105

Di una nuova medusa gemmante (*Cyrtia minima* n. sp.) del Golfo di Napoli. Mon. zool. ital., Firenze, **13**, 1902, (Supplemento), (52-53). [0831]. 106

**Vanhöffen, Ernst.** Ctenophoren. [In: Nordisches Plankton. Lfg. 2.] Kiel u. Leipzig, 1903, (XI 1-XI 7). [0827 la]. 107

**Vaughan, Thomas** Wayland. Corrections to the nomenclature of the Eocene fossil corals of the United States. Washington, D.C., Proc. Biol. Soc., **16**, 1903, (101). [0831]. 108

The corals of the Buda limestone [Texas]. [Appendix to Mollusca of the Buda limestone by G. B. Shattuck]. Washington, D.C., U. S. Dept. Int., Bull. Geol. Surv., No. **205**, 1903, (37-40, with pl.). [0831]. 109

**Weed, C. M. and Crossman, R. W.** A laboratory guide for beginners in Zoology. London (Heath & Co.), 1903, (xxiv + 105). [Review] Nature, London, **68**, 1903, (319). [0030 0403 1803 0803 0807]. 111

**Whitfield, Robert P[arr].** Observations on a remarkable specimen of *Halysites* and description of a new species of the genus. New York, N.Y., Bull. Amer. Mus. Nat. Hist., **19**, 1903, (489-490, with 2 pls.). Separate. 24.5 cm. [0831]. 112

**Wilson, Edmund B.** Notes on merogony and regeneration in *Renilla*. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **4**, 1903, (215-226). [0211 0215 0811 0815 0831]. 113

**Wood, Ethel M. v. Elles, Gertrude L.**

## 0803. COMPREHENSIVE AND GENERAL WORKS.

### GENERAL.

Le corail au Japon. Bul. Musée commerc., Bruxelles, **1903**, (1444).

**Carligen, Oskar.** Jahresbericht über die Anthozoen für die Jahre 1892 und 1893. Arch. Natg., Berlin, **62**, Bd 2, H. 3, 1896, [1903], (145-180).

**Goodchild, J. G.** The Coelenterata in relation to geological zones. Edinburgh, Proc. R. Physic. Soc., **15**, 1903, (57-62).

**Hickson, S. J.** [Presidential address]. Nature, London, **68**, 1903, (452-458).

**Kishinouye, Kamakichi.** [On six Japanese species of *Corallium*.] (Japanese) Dobuts. Z., Tokyo, **15**, 1903, (103-106).

**Roule, Louis.** Le Corail, son histoire. Messager de Bruxelles, **1902**, (127).

**Weed, C. M. and Crossman, R. W.** A laboratory guide for beginners in Zoology. London (Heath & Co.), 1903, (xxiv + 105). [Review], Nature, London, **68**, 1903, (319).

### MUSEUMS.

**Bell, J. and Kirkpatrick.** Guide to the Coral gallery. British Museum of Natural History. [Review], Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (132).

**Bernard, H. M.** Catalogue of the Madreporarian Corals in the British Museum. (Natural History). IV. The family *Poritidae*. I. The genus *Goniopora*. London, 1903, (VIII + 206, 14 pls.).

## 0807 STRUCTURE.

### GENERAL.

**Bédot, [Maur.]** Recherches sur la *Bathyphysa grimaldii*. Arch. Sci. Phys., Genève, (sér. 4), **15**, 1903, (464-465).

**Bourne, G. C.** Some new and rare corals from Funafuti. London, J. Linn. Soc. Zool., **29**, No. 187, 1903, (26-37, pls. V, VI).

**Davydov, K. N.** Les résultats du voyage scientifique au Java et les autres

iles de l'Archipel Malais. II. *Hydroctena salenskii* sp. n. (Etude morphologique sur un nouveau Coelenteré pélagique). St. Petersburg, Mém. Ac. Sc., (8 F.), 14, No. 9, 1903, (16, av. 1 pl.).

Duerdan, J. E. On the Actinian *Bunodoopsis globulifera* Verrill. London, Trans. Linn. Soc. Zool., (Ser. 2), 8, 1903, (297-317, 2 pls.).

Eiles, Gertrude and Wood, Ethel M. R. [Edited by Lapworth.] A monograph of British Graptolites. III. London, Monogr. Palaeont. Soc., 57, 1903, (xxix-liv, 103-134, pls. XIV-XIX).

Krempf, Arm. Sur un point de l'anatomie de quelques Hexacoralliaires. Paris, C.-R. Acad. sci., 136, 1903, (1210-1212).

May, Albert J. A contribution to the morphology and development of *Corymorpha pendula* Ag. [With bibliography.] Amer. Nat., Boston, Mass., 37, 1903, (579-599).

Wood, C. M. and Crossman, R. W. A laboratory guide for beginners in Zoology. London (Heath & Co.), 1903, (xxiv + 105). [Review], Nature, London, 68, 1903, (319).

#### NERVOUS SYSTEM AND ORGANS OF SENSE.

Davydov, K. N. Les résultats du voyage scientifique au Java et les autres îles de l'Archipel Malais. II. *Hydroctena salenskii* n. sp. (Etude morphologique sur un nouveau Coelenteré pélagique). St. Petersburg, Mém. Ac. Sc., (8 F.), 14, No. 9; 1903, (16, av. 1 pl.).

Kassianow, N. Ueber das Nervensystem der Alcyonarien. Bergens Mus. Arb., 1903, No. 6, (3).

#### SKELETAL STRUCTURES.

Hickson, S. J. The horny membrane of *Neohelia porcellana*. Nature, London, 67, 1903, (344).

### 0811 PHYSIOLOGY.

#### FUNCTION OF SPECIAL STRUCTURES.

Billard, De l'excrétion chez les hydroides. Paris, C.-R. Acad. sci., 137, 1903, (340-342).

#### ENVIRONMENTAL EFFECTS.

Kota-Kosowaka, M<sup>me</sup>. Sur l'action morphogène de l'eau en mouvement sur

les Hydraires. Paris, C.-R. Acad. sci., 137, 1903, (863-865).

#### REGENERATION.

Carligen, O. Über die Regeneration der Seeanemonen. Helsingfors, Comptes rendus du Congrès des Naturalistes et Médecins du Nord tenu à Helsingfors du 7 au 12 juillet 1902, 1903, VI Section, (9-11).

Cerfontaine, Paul. Recherches expérimentales sur la régénération et l'hétéromorphose chez *Astroïdes calycularis* et *Pennaria cavolinii*. Arch. biol., Paris-Liège, 19, 1902, (245-315, av. 2 pl.).

Child, C. M. Form-regulation in Coelentera and Turbellaria. Washington, D.C., Smithsonian Inst., Misc. Collect. Q. Issue, 45, 1903, (134-143, with pl.).

Form-regulation in *Cerianthus*. Wood's Holl, Mass., Mar. Biol. Lab. Bull., 5, 1903, (239-260, 304-319, with text-fig.); 6, 1903, (1-11, with text-fig.).

Hargitt, George Thomas. Regeneration in *Hydromedusae*. Lincoln, Stud. Zool. Lab. Univ. Neb., No. 57, 1903, (32 with pl.). 23 cm.

Mathews, Albert [Prescott]. Electrical polarity in the hydroids. Amer. J. Physiol., Boston, Mass., 8, 1903, (294-299).

Wilson, Edmund B. Notes on merogony and regeneration in *Renilla*. Wood's Holl, Mass., Mar. Biol. Lab. Bull., 4, 1903, (215-226).

#### ABSORPTION.

Thacher, [Henrietta] F. A preliminary note on the absorption of the hydranths of hydroid polyps. Wood's Holl, Mass., Mar. Biol. Lab. Bull., 4, 1903, (96-98).

Absorption of the hydranth in hydroid polyps. L.c. 5, 1903, (297-303).

#### CHEMICAL PHYSIOLOGY.

Henze, M. Zur Chemie des Gorgonins und der Jodgorgosäure. Hoppe-Seylers Zs. physiol. Chem., Strassburg, 38, 1903, (60-79).

Richert, Charles. Des poisons contenus dans les tentacules des Actinies (congestine et thalassine). Paris, C.-R. soc. biol., 55, 1903, (246-248).



## EXPERIMENTAL PHYSIOLOGY.

**Peebles, Florence.** Experiments in generation and in grafting of *Hydrozoa* [with bibliography]. [Reprinted from the Archiv für Entwicklungsmechanik der Organismen, **10**, 1900]. Bryn Mawr, Pa., Bryn Mawr Coll. Monogr. (Repr. Ser.), **1**, 1901, (1-51).

## 0815 DEVELOPMENT.

## (GENERAL.

**May, Albert J.** A contribution to the morphology and development of *Corymorpha pendula* Ag. [with bibliography]. Amer. Nat., Boston, Mass., **37**, 1903, (579-599).

**Perkins, Henry Farnham.** The development of *Gonionema murbachii*. Philadelphia, Pa., Proc. Acad. Nat. Sci., **54**, 1902, [1903]. (750-790. with pl.).

## ASEXUAL REPRODUCTION.

**Duerden, J. E.** IV. Fissiparous gemmation. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (141-155, with 7 figs.).

## SPERMATOGENESIS.

**Aders, Walter M.** Beiträge zur Kenntnis der Spermatogenese bei den Cœlenteraten. Zs. wiss. Zool., Leipzig, **74**, 1903, (81-108, mit 2 Taf.).

**Görlich, Wilhelm.** Zur Kenntnis der Spermatogenese bei den Poriferen und Cœlenteraten. Zool. Anz., Leipzig, **27**, 1903, (64-70).

——— Weiteres über die Spermatogenese bei den Poriferen und Cœlenteraten. L.c. (172-174).

**Guenther, Konrad.** Die Samenreife bei *Hydra viridis*. Ein Beitrag zur Frage nach der Bedeutung des Nucleolus. (Vorläuf. Mitt.) L.c. **26**, 1903, (628-630).

## EMBRYOLOGY.

**Trinci, Giulio.** Di una nuova specie di *Cytaeis gemmante* del Golfo di Napoli. Mitt. zool. Stat. Neapel, Berlin, **16**, 1903, (1-34, mit 1 Taf.).

**Wilson, Edmund B.** Notes on merogony and regeneration in *Renilla*. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **4**, 1903, (215-226).

## EXPERIMENTAL EMBRYOLOGY.

**Fischel, Alfred.** Entwicklung und Organ-Differenzierung. Arch. Entw.-Mech., Leipzig, **15**, 1903, (679-750).

## 0819 ETHOLOGY.

## GENERAL.

**Todd, R. A.** Notes on the invertebrate fauna and fish-food of the bays between the Start and Exmouth. Plymouth, J. Mar. Biol. Ass., **6**, No. 4, 1903, (541-561).

## HABITS.

**Beardsley, A. E.** The destruction of trout fry by hydra. [*Hydra pallida* n. sp.] Washington, D.C., Bull. U. S. Fish Com., **22**, (1902), 1903, (155-160).

**Brüning.** *Hydra* und *Limnaea* im Aquarium. Natur u. Haus, Dresden, **11**, 1903, (135-138).

## HABITAT.

**Fowler, G. H.** Contributions to our knowledge of the plankton of the Faeroe Channel. VIII. London, Proc. Zool. Soc., **1903**, **1**, (117-133, text-figs. 13-17).

**Goodchild, J. G.** Observations on the bathymetrical distribution of reef-building Corals. Edinburgh, Proc. R. Physic. Soc., **15**, 1903, (66-69).

**Pérez, Ch.** Sur une station du *Cordyllopora lacustris*. Paris, C.-R. soc. biol., **55**, 1903, (98).

## CORAL REEFS.

Review of Agassiz, A. On the formation of barrier reefs and of the different types of atolls. Nature, London, **67**, 1903, (547).

**Foslie, M.** The *Lithothamnium* of the Maldives and Laccadives [mentions corals on which *Lithothamnium* grow]. [Gardiners] Fauna Maldiva, **1**, (160-471, pls. XXIV-XXV).

**Gardiner, J. S.** The Maldive and Laccadive groups, with notes on other Coral formations in the Indian Ocean (continued). *I.e.* (314-346, pls. XVI-XVII, text-figs. 74 and 75 (concluded); (376-423, pls. XIX-XXI).

——— Lagoon deposits. I. General account, II. Report on certain deposits, by Sir J. Murray. *I.e.* II, 1, (581-588, pl. XXXIV).

——— The origin of coral reefs as shown by the Maldives. *Amer. J. Sci., New Haven, Conn., (Ser. 4), 16, 1903, (203-213).*

——— Formation of the Maldives. *London, Geog. J., 19, 1903, (277-296, 12 figs.).*

——— The breaking-up of coral rock by organisms in the Tropics. *London, Rep. Brit. Ass., 1902, (654-655).* [Prelim. Abstract], *Nature, London, 66, 1902, (641).*

## SYMBIOSIS.

**Günther, R.** On the structure and affinities of *Menestrea parasites* Krohn; with a revision of the classification of the *Cladonemidae*. *Mitt. zool. Stat. Neapel, Berlin, 16, 1903, (35-62, mit 2 Taf.; 280).*

**Herst, R.** On a case of commensalism of a fish (*Amphirion intermedius* Schleg.) and a large sea-anemone (*Discozoma spec.*). *Leiden, Notes Mus. Jentink, 23, 1903, (180-182).*

## PARASITISM.

**Skorikov, A[leksander] S[tepanovic].** Zur Parasitologie der Störe. (Russ.) *Vest. rybopromysl., St. Peterburg, 1903, 18, (63-82, mit 1 Taf.).*

## 0823 VARIATION AND ÆTIOLOGY.

## (GENERAL.

**Billard, A.** Note sur les variations du *Plumularia halecioides* Alder. *Bul. Muséum, Paris, 1903, (57-62).*

**Murbach, L.** Egg laying in *Gonionemus*. *Science, New York, N.Y., (N. Ser.), 17, 1903, (192).*

## EVOLUTION.

**Thomson, J. A.** [Review of "Die organischen Regulationen-Vorbereitungen zu einer Theorie des Lebens," by Hans Driesch. Leipzig, 1901, (xx + 228)]. *Nature, London, 67, 1903, (50).*

## 0827 GEOGRAPHICAL DISTRIBUTION.

*d* EUROPE.

*da* SCANDINAVIA.

**Browne, Edward.** *Medusae* from Norway and Spitzbergen. *Bergens Mus. Aarb., 1903, No. 4, (36, with 5 pl.).*

**Fowler, G. A.** Contributions to our knowledge of the plankton of the Faeroe Channel. VIII. *London, Proc. Zool. Soc., 1903, 1, (117-133, text-figs. 13-17).*

*db* RUSSIA IN EUROPE.

**Schuchert, Charles.** On the faunal provinces of the middle Devonian of American and the Devonian coral sub-provinces of Russia, with two paleogeographic maps. *Amer. Geol., Minneapolis, Minn., 32, 1903, (137-162, with 2 pls.).*

*de* BRITISH ISLANDS.

**Ellis, Gertrude J. and Wood, Ethel M. R.** [Edited by Lapworth.] A monograph of British Graptolites. III. *London, Monogr. Palaeont. Soc., 57, 1903, (xxix-lII, 103-134, pls. XIV-XIX).*

**Gill, E. L.** Note on the occurrence of Keisley Limestone-Pebbles in the red sandstone-rocks of Peel (Isle of Man). *London, Q. J. Geol. Soc., 59, 1903, (307-310).*

**Herdman, W. A.** [Coelenterata]: in the new biological Station at Port Erin, being the 16th annual report of the Liverpool Marine Biology Committee. *Liverpool, Trans. Biol. Soc., 17, 1903, (15-67).*

**Jukes-Browne, A. J.** On the zones of the Upper Chalk in Suffolk. *London, Proc. Geol. Ass., 18, 1903, (85-94, 1 map).*

**Lang, W. D.** On a fossiliferous bed in the Selbornian of Charmouth. *Geol. Mag.*, London, [4], **10**, 1903, (388-392, 1 fig.).

**Pearcey, F. G.** Notes on the marine deposits of the Firth of Forth, and their relation to its animal life. *Glasgow, Trans. Nat. Hist. Soc.*, **6**, 1903, (217-251, with map).

**Petch, T.** The Marine Fauna of the Humber District and the Holderness Coast. *Hull, Trans. Sci. F. Nat. Cl.*, **3**, 1903, (27-41).

——— *Marine Zoology of Filey.* Naturalist, London, **1903**, (351).

**Rowe, A. W.** The zones of the white chalk of the English coast. III. Devon. *London, Proc. Geol. Ass.*, **13**, 1903, (1-51, pp. I-XIII); IV. Yorkshire, *ib.*, (193-296, pls. XVII-XL).

**Shrubsole, O. A.** On the probable source of some of the pebbles of the Triassic Pebble-beds of South Devon and of the Midland Counties. *London, Q. J. Geol. Soc.*, **59**, 1903, (311-333).

**Todd, R. H.** Notes on the invertebrate fauna and fish-food of the bays between the Start and Exmouth. *Plymouth, J. Mar. Biol. Ass.*, **6**, No. 4, 1903, (541-561).

**Tomes, R. F.** Description of a species of *Heterastraea* from the Lower Rhaetic of Gloucestershire. *London, Q. J. Geol. Soc.*, **59**, 1903, (403-407, 2 figs.); [review], *Nature*, London, **68**, 1903, (142).

*dk* AUSTRIA-HUNGARY.

**Gordon, Maria M. O.** The geological structure of Monzoni and Fassa. *Edinburgh, Trans. Geol. Soc.*, **8**, 1903, (sp. part X + 180, with 18 pls., 2 maps, and 33 text-figs.).

*e* ASIA.

*ec* JAPANESE ISLANDS.

**Kirkpatrick, R.** Notes on some *Medusae* from Japan. *Ann. Mag. Nat. Hist.*, London, (Ser. 7), **12**, 1903, (615-621, pl. XXXIII).

*eg* MALAY PENINSULA.

**Maas, Otto.** Die Scyphomedusen der Siboga-Expedition. Résultats des explorations zool., botan., océanogr., géol., entreprises à bord du Siboga, publiés par Max Weber. *Livr. 10, Monogr. 11.* Leide (E. J. Brill), 1903, (91, mit 12 Taf.). 33 cm.

**Moser, Fanny.** Die Ctenophoren der Siboga-Expedition. Résultats des explorations zool., botan., océanogr., géol., entreprises à bord du Siboga, publiés par Max Weber. *Livr. 11, Monogr. 12.* Leide (E. J. Brill), 1903, (34, mit 4 Taf.). 33 cm.

*f* AFRICA.

*ff* EAST AFRICA.

**Hickson, S. J.** On the Coelenterata collected by Mr. C. Crossland in Zanzibar. I. *Ceratella minima* n. sp. *London, Proc. Zool. Soc.*, **1903**, **1**, (113-116).

**Gravier, Ch.** Sur la Méduse du Victoria Nyanza. *Paris, C.-R. Acad. sci.*, **137**, 1903, (867-869).

*g* NORTH AMERICA.

**Hargitt, Cha[rle]s W[esley].** Synopsis of North American Invertebrates. 14. Part 4. The *Scyphomedusae*. *Amer. Nat.*, Boston, Mass., **37**, 1903, (331-345).

**Schuchert, Charles.** On the faunal provinces of the middle Devonian of American and the Devonian coral sub-provinces of Russia, with two paleographic maps. *Amer. Geol.*, Minneapolis, Minn., **32**, 1903, (137-162, with 2 pls.).

*ga* ALASKA.

**Clarke, Samuel Fessenden.** An Alaskan *Corymorpha*-like-Hydroid. Washington, D.C., Smithsonian Inst., Nation. Mus. Proc., **26**, 1903, (953-958, with text fig.). Separate. 24.3 cm.

*gd* CANADIAN DOMINION WEST.

**Murbach, L. and Shearer, C.** On *Medusae* from the coast of British Columbia and Alaska. *London, Proc. Zool. Soc.*, **1903**, **2**, (164-192, pls. XVII-XXII).

## gg NORTH EASTERN UNITED STATES.

**Greene, George K.** Contribution to Indiana palæontology. Part XI. New Albany, Indiana, 1903, (98-109); Part XV, l.c. (146-155, with pl.). 22.8 cm.

## h CENTRAL AND SOUTH AMERICA.

## hc WEST INDIES.

**Duerden, J. E.** West Indian sponge incrusting Actinians. [With bibliography.] New York., N.Y., Bull. Amer. Mus. Nat. Hist., 19, 1903, (495-503, with 4 pls.). Separate. 24.5 cm.

## i AUSTRALASIA.

## ia NEW GUINEA, ETO.

**Burchardt, Eugen.** Alcyonaceen von Thursday Island (Torres-Strasse) und von Amboina, II. Jena, Denkschr. med. Ges., 8, 1903, (653-682, mit 4 Taf.).

**Hentschel, Ernst.** Gorgonacea von Amboina und Thursday Island. l.c., (643-652, mit 2 Taf.).

**Maas, Otto.** Die Scyphomedusen der Siboga-Expedition. Résultats des explorations zool., botan., océanogr., géol., entreprises à bord du Siboga, publiés par Max Weber. Livr. 10, Monogr. 11. Leide (E. J. Brill), 1903, (91, mit 12 Taf.). 33 cm.

**Mooser, Fanny.** Die Ctenophoren der Siboga-Expedition. Résultats des explorations zool., botan., océanogr., géol., entreprises à bord du Siboga, publiés par Max Weber. Livr. 11, Monogr. 12. Leide (E. J. Brill), 1903, (34, mit 4 Taf.). 33 cm.

## ir NEW SOUTH WALES.

**Hall, T. S.** Occurrence of *Monograptus* in New South Wales. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, 27, (1902), 1903, (654, 655, with 1 text-fig.).

——— On the occurrence of Graptolites in New South Wales. Nature, London, 67, 1903, (288).

## k ARCTIC.

**Römer, Fritz.** Die Ctenophoren. (Fauna Arctica, 3.) Jena, 1903, (65-90).

## ka ARCTIC OCEAN.

**Broch, Hjalmar.** Die von „Michael Sars“ . . . gesammelten Hydroiden. Bergens Mus. Aarb., 1903, No. 9, (14, 4 pl.).

## kd ISLANDS NORTH OF EUROPE AND ASIA.

**Browne, Edward.** *Medusae* from Norway and Spitzbergen. Bergens Mus. Aarb., 1903, No. 4, (36, with 5 pls.).

## l ATLANTIC.

## la NORTH ATLANTIC OCEAN.

**Broch, Hjalmar.** Die von „Michael Sars“ . . . gesammelten Hydroiden. Bergens Mus. Aarb., 1903, No. 9, (14, with 4 pl.).

**Günther, R. T.** Report on the Coelenterata from the intermediate waters of the N. Atlantic, obtained by Mr. George Murray during the cruise of the "Oceana" in 1898. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (420-430, pls. IX, X).

**Vanhöffen, Ernst.** Ctenophoren. [In: Nordisches Plankton. Lfg 2.] Kiel u. Leipzig, 1903, (XI 1-XI 7).

## lc SOUTH ATLANTIC AND ISLANDS.

**Kükenthal, [Willy].** Ueber eine neue Nephthyidengattung aus dem südatlantischen Ocean. Zool. Anz., Leipzig, 26, 1903, (272-275).

## m INDIAN OCEAN.

## ma OCEANS AND ISLANDS N. OF EQUATOR.

**Gardiner, J. S.** Formation of the Maldives. London, Geog. J. 19, 1903, (277-296, 12 figs.).

——— The Maldivian and Laccadive groups, with notes on other Coral-formations in the Indian Ocean (continued). Fauna Maldiva, 1, (314-346, pls. XVI, XVII, text-figs. 74, 75 (concluded); (376-423, pls. XIX-XXI).

——— Lagoon deposits. I. General account. II. Report on certain deposits, by Sir J. Murray. l.c. II, 1, (581-588, pl. XXXIV).

**Gardiner, J. S.** The origin of coral reefs as shown by the Maldives. *Amer. J. Sci.*, New Haven, Conn., (Ser. 4), **16**, 1903, (203-313).

**Hickson, S. J.** The Alcyonaria of the Maldives. I. The genera *Xenia*, *Telesto*, *Spongodes*, *Nephthya*, *Paraspongodes*, *Chironephthya*, *Siphonogoria*, *Solenocaulon*, and *Melitodes*. *Fauna Maldiva*, **2**, 1, (473-502, pls. XXVI, XXVII).

**Pratt, Edith M.** The Alcyonaria of the Maldives. II. The genera *Sarcophytum*, *Lobophytum*, *Sclerophytum* and *Alcyonium*. *l.c.* (503-539, pls. XXVIII-XXXI).

*n* PACIFIC OCEAN.

*nb* SOUTH PACIFIC OCEAN.

**Bourne, G. C.** Some new and rare corals from Funafuti. London, *J. Linn. Soc. Zool.*, **29**, No. 187, 1903, (26-37, pls. V, VI).

## 0831 TAXONOMY.

### GENERAL.

**Greene, G. K.** Contribution to Indiana palaeontology. Part XI. New Albany, Indiana, 1903, (98-109, with pl.); Part XV. *Ib.* (146-155, with pl.). 22.8 cm.

**Günther, R. T.** Report on the Coelenterata from the intermediate waters of the North Atlantic, obtained by Mr. George Murray during the cruise of the "Oceana" in 1898. *Ann. Mag. Nat. Hist.*, London, (Ser. 7), **11**, 1903, (420-430, pls. IX, X).

**Hall, T. S.** The possibility of detailed correlation of Australian formations with those of the Northern Hemisphere. Presidential address, Melbourne. [Publication not named—recorded from separate copy.] (165-190).

**Hickson, S. J.** On the Coelenterata collected by Mr. C. Crossland in Zanzibar. I. London, *Proc. Zool. Soc.*, **1903**, 1, (113-116).

**Schuchert, C.** On the faunal provinces of the middle Devonian of America and the Devonian coral sub-provinces of

Russia, with two paleogeographic maps. *Amer. Geol.*, Minneapolis, Minn., **32**, 1903, (137-162, with 2 pls.).

**Vaughan, Thomas]** Wayland. Corrections to the nomenclature of the Eocene fossil corals of the United States. Washington, D.C., *Proc. Biol. Soc.*, **16**, 1903, (101).

### GRAPTOLITES.

#### GENERAL.

**Elles, G. L. and Wood, E. M. R.** [Edited by Lapworth.] A monograph of British Graptolites. III. London, *Monogr. Palaeont. Soc.*, **57**, 1903, (XXIX-LII, 103-134, pls. XIV-XIX).

**Hall, T. S.** On the occurrence of Graptolites in New South Wales. *Nature*, London, **67**, 1903, (288).

**Strandmark, J. E.** Lower Graptolite slate in Fågelsång, Scania. (Swedish) Stockholm, *Geol. För. Förh.*, **23**, 1901, (548-556, pl. 17).

#### SPECIAL.

*Amphigraptus distans*† n. sp. **Elles, G. L. and Wood, E. M. R.** London, *Monogr. Palaeont. Soc.*, **57**, 1903, (124).

*Leptograptus*† nn. spp., nn. varr. **Elles, G. L. and Wood, E. M. R.** *l.c.* (108-117).

*Monograptus*†, occurrence in New South Wales. **Hall, T. S.** Sydney, N.S.W., *Proc. Linn. Soc. N.S. Wales*, **27**, (1902), 1903, (654, 655, 1 text fig.).

*Nemagraptus gracilis* var. *remotus*† n. var. **Elles, G. L. and Wood, E. M. R.** London, *Monogr. Palaeont. Soc.*, **57**, 1903, (130).

*Phyllograptus cor*† n. sp. **Strandmark, J. E.** Stockholm, *Geol. För. Förh.*, **23**, 1901, (548-556).

### HYDROMEDUSAE.

#### GENERAL.

**Billard.** De l'excrétion chez les hydroides. Paris, *C.-R. Acad. sci.*, **137**, 1903, (340-342).

**Broch, H.** Die von dem norwegischen Fischereidampfer Michael Sars in den Jahren 1900-1902 in dem Nordmeer

gesammelten Hydroiden. Bergens Mus. Aarb., 1903, No. 9, (14, with pl.).

Browne, E. . . . Medusae from Norway and Spitzbergen. l.c. 1903, No. 4, (36, with 5 pls.).

Clarke, S. F. An Alaskan *Corymorpha*-like Hydroid. Washington, D.C., Smithsonian Inst. Nation. Mus. Proc., 26, 1903, (953-958, with text fig.). Separate 24.3 cm.

Hargitt, G. T. Regeneration in *Hydromedusae*. Lincoln, Stud. Zool. Lab. Univ. Neb., No. 57, 1903, (32, with pl.). 23 cm.

Kirkpatrick, R. [Notes on *Trachomedusae* and *Discomedusae* from Japan.] Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (618-621).

Mathews, A. P. Electrical polarity in the hydroids. Amer. J. Physiol., Boston, Mass., 8, 1903 (294-299).

Mots-Kossowska, M<sup>me</sup>. Sur l'action morphogène de l'eau en mouvement sur les Hydraires. Paris, C.-R. Acad. sci., 187, 1903, (863-865).

Murbach, L. and Shearer, C. On *Medusae* from the coast of British Columbia and Alaska. London, Proc. Zool. Soc., 1903, 2, (164-192, pls. XVII-XXII).

Peebles, Florence. Experiments in generation and in grafting of *Hydra* [with bibliography]. [Reprinted from the Archiv für Entwicklungsmechanik der Organismen 10, 1900]. Bryn Mawr, Pa., Bryn Mawr Coll. Monogr. (Repr. Ser.), 1, 1901, (1-51).

Thacher, H[enrietta] F. A preliminary note on the absorption of the hydranths of hydroid polyps. Wood's Holl, Mass., Mar. Biol. Lab. Bull., 4, 1903, (96-98).

———. Absorption of the hydranth in hydroid polyps. l.c. 5, 1903, (297-303).

## SPECIAL.

*Aequorea norvegica* n. sp. Browne, E. Bergens Mus. Aarb., 1903, No. 4, (19, pl. V, figs. 1-5).

*Aglantha rosea* Forbes. North Atlantic. Günther, R. T. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (427-428, pl. X, figs. 6-8).

*Antennularia variabilis* n. sp. Norway. Broch, H. Bergens, Mus. Aarb., 1903, No. 9, (10, pl. IV, figs. 22-25).

*Bathypphysa grimaldii*, recherches. Bedot, [M.] Arch. Sci. Phys., Genève, (sér. 4), 15, 1903, (464-465).

*Brooksella rhenana*† n. sp. Das erste Medusenfossil aus dem Devon. Kinkel, F. Frankfurt a. M., Ber. Senckenb. Ges., 1903, Tl 2, (89-96, mit 1 Taf.).

*Bythotia* n. gen. *B. murrayi* n. sp. North Atlantic. Günther, R. T. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (424-425, pl. X, figs. 4, 5).

*Cerata minima* n. sp. Zanzibar. Hickson, S. J. London, Proc. Zool. Soc., 1903, 1, (116).

*Codonium apiculum* n. sp. British Columbia. Murbach, L. and Shearer, C. l.c. 2, (165-168, pls. XVII, XXII, figs. 1, 4, 5).

*Cordylopora lacustris*, une station de. Pérez, Ch. Paris, C.-R. soc. biol., 55, 1903, (98).

*Corymorpha pendula*, morphology and development. May, A. J. Amer. Nat., Boston, Mass., 37, 1903, (579-599).

*Cytacis minima* n. sp. Golfo di Napoli. Trinci, G. Mitt. zool. Stat. Neapel, Berlin, 16, 1903, (1-34, mit 1 Taf.); Mon. zool. ital., Firenze, 13, 1902, (52-53).

*Dichotomia* n. gen., *D. cannoidea* n. sp. Brooks, W. K. Philadelphia, Pa., Proc. Amer. Phil. Soc., 42, 1903, (11-14, with 1 pl.).

*Dipurena dolichogaster* (Haeckel). British Columbia. Murbach, L. and Shearer, C. London, Proc. Zool. Soc., 1903, 2, (169-170).

*Gonionema murbachii*, general development. Perkins, H. F. Philadelphia, Pa., Proc. Acad. Nat. Sci., 54, 1902, [1903], (750-790, with pl.).

*Gonionemus*, variation of fertility. Murbach, L. Science, New York, N.Y., (N. Ser.), 17, 1903, (192).

———. nomenclature. Murbach, L. 18, 1903, (373-374).

———. *vertens* A. Agassiz, description, *G. agassizii* n. sp. Alaska and British Columbia. Murbach, L. and Shearer, C. London, Proc. Zool. Soc., 1903, 2, (183-188, pl. XXI, figs. 1, 2, and 3, and pl. XXII, fig. 3).

*Gonomeandrus* n. gen., *G. chrysostephanus* n. sp. Japan. **Kirkpatrick**, R. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (615-618).

*Halecium minutum* n. sp. Norway. **Broch**, H. Bergens. Mus. Aarb., **1903**, No. 9, (4, pl. I, figs. 1-4).

*Halicornaria pluma* n. sp. Norway. **Broch**, H. l.c. (8, pl. IV, figs. 15-21).

*Halopsis ocellata* Agassiz (?), description. N. Atlantic. **Günther**, R. T. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (426).

*Hippocrene mertensii* (Haeckel). British Columbia. **Murbach**, L. and **Shearer**, C. London, Proc. Zool. Soc., **1903**, 2, (171-172).

*Hydra* im Aquarium. **Brüning**. Natur u. Haus, Dresden, **11**, 1903, (135-138).

— *pallida* n. sp. **Beardale**, A. E. Washington, D.C., Bull. U. S. Fish Com., **22**, (1902), 1903. (155-160).

— *viridis*, Spermatogenese. **Aders**, W. M. Zs. wiss. Zool., Leipzig, **74**, 1903, (81-108, mit 2 Taf.).

— Samenreifung. **Günther**, K. Zool. Anz., Leipzig, **26**, 1903, (628-630).

*Hydroctena salenskii* n. sp. Archipel Malais. **Davydov**, K. N. St. Petersburg, Mémoires. Ac. Sc., (8 S.), **14**, No. 9, 1903, (16, av. 1 pl.).

*Lafcea elegantula* n. sp. N. Seas. **Broch**, H. Bergens Mus. Aarb., **1903**, 9, (5, pl. I, II, figs. 5-9).

*Laodice chapmani* n. sp. North Atlantic. **Günther**, R. T. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (425-426, pl. IX, figs. 1, 2, 3).

*Limnoecia tanganyicae*. Victoria Nyanza. **Gravler**, C. Paris, C.-R. Acad. sci., **137**, 1903, (867-869).

*Margelis nordgaardii* n. sp. **Browne**, E. Bergens Mus. Aarb., **1903**, No. 4, (14, pl. II, fig. 1, pl. III, figs. 5, 6).

*Margelopsis hartlaubii* n. sp. **Browne**, E. l.c., (10, pl. I, fig. 2, pl. III, fig. 3).

*Menestra*, Symbiose mit *Phyllirhoe*, a revision of the classification of the *Cladonemidae*. **Günther**, R. Mitt. zool. Stat. Neapel, Berlin, **16**, 1903, (35-62, mit 2 Taf.; 280).

*Mesonema victoria* n. sp. British Columbia. **Murbach**, L. and **Shearer**, C. London, Proc. Zool. Soc., **1903**, 2, (180-183, pl. XIX, figs. 1, 1A, and 2, XXII, fig. 2).

*Mitrocomella fulva* n. sp. **Browne**, E. Bergens Mus. Aarb., **1903**, No. 4, (17, pl. I, fig. 3, pl. III, figs. 1, 2).

*Muggiaea kochii* Chun, description. British Columbia. **Murbach**, L. and **Shearer**, C. London, Proc. Zool. Soc., **1903**, 2, (189-190).

*Neohelia porcellana*, horny membrane, **Hickson**, S. J. Nature, London, **67**, 1903, (344).

*Philadium languidum* Haeckel, *P. gregarium* Haeckel, description. British Columbia. **Murbach**, L. and **Shearer**, C. London, Proc. Zool. Soc., **1903**, 2, (179-180, pl. XX, figs. 1, 1A).

*Plumularia halecioides* Alder, variations. **Billard**, A. Bul. Muséum, Paris, **1903**, (57-62).

*Polyorchis minuta* n. sp. l'ugot Sound. **Murbach**, L. and **Shearer**, C. London, Proc. Zool. Soc., **1903**, 2, (174-177, pl. XIX, and XXII, figs. 1, 3).

*Proboscidiactyla brevicirrata* Haeckel. **Murbach**, L. and **Shearer**, C. British Columbia. l.c. (178-179).

*Sarsia princeps* n. nom. for *Codonium princeps* Haeckel. **Browne**, E. Bergens. Mus. Aarb., **1903**, 4, (8, pl. I, fig. 1, pl. III, fig. 4).

*Syndictyon angulatum* (Mayer), description. British Columbia. **Murbach**, L. and **Shearer**, C. London, Proc. Zool. Soc., **1903**, 2, (168-169).

*Tetraplatia volitans* (Busch.), osservazioni. **Marchese**, B. Messina (tip. dell'Epoca), 1902, (12, con tav.).

*Thaumatias cellularia* (Haeckel). British Columbia. **Murbach**, L. and **Shearer**, C. London, Proc. Zool. Soc., **1903**, 2, (172-174, pl. XXII, figs. 2, 2A, 2B).

*Thuiaria hjorti* n. sp. Norway. **Broch**, H. Bergens. Mus. Aarb., **1903**, No. 9, (14).

*Turris brevicornis* n. sp. Alaska. **Murbach**, L. and **Shearer**, C. London, Proc. Zool. Soc., **1903**, 2, (170-171, pl. XVIII, figs. 1 and 2).

## SCYPHOMEDUSAE.

## GENERAL.

**Browne, E.** . . . *Medusae* from Norway and Spitzbergen. *Bergens Mus. Aarb.*, 1903, No. 4, (36, with 4 pls.).

**Hargitt, C. W.** Synopsis of North American Invertebrates. 14. Part 4. *The Scyphomedusae*. Amer. Nat., Boston, Mass., 37, 1903, (331-345).

**Maas, O.** Die Scyphomedusen der Siboga-Expedition. Résultats des explorations zool., botan., océanogr., géol., entreprises à bord du Siboga, publiés par Max Weber. Livr. 10, Monogr. 11. Leide (E. J. Brill), 1903, (91, mit 12 Taf.). 33 cm.

## SPECIAL.

*Aurelia aurita*, Spermatogenese. **Aders, W. M.** Zs. wiss. Zool., Leipzig, 74, 1903, (95-105).

*Cassiopeja ornata* var. *digitata* n. var., *C. andromeda*, var. *malayensis* n. var. **Maas, O.** Die Scyphomedusen der Siboga-Expedition. Livr. 10, Monogr. 11, 1903, (43, 45, pl. IV, figs. 26-30).

*Crambione* n. gen., *C. mastigophora* n. sp. **Maas, O.** l.c. (49, pl. VI, figs. 47-53, pl. VIII, figs. 71-74, pl. XI, figs. 100-104, pl. XII, fig. 113).

*Crossostoma anadyomene* n. sp. **Maas, O.** l.c. (56, pl. VII, figs. 65-68).

*Mastigias papua* var. *sibogae* n. var. **Maas, O.** l.c. (66-70).

*Netrostoma coerulescens* n. sp. **Maas, O.** l.c. (35, pl. V, figs. 37-46, pl. XI, figs. 97-103, pl. XII, fig. 109).

*Paraphyllina* n. gen., *P. intermedia* n. sp. **Maas, O.** l.c. (6, pl. II, figs. 10-14, pl. XI, fig. 106).

## ALCYONARIA.

## GENERAL.

**Burchardt, E.** Alcyonaceen von Thursday Island (Torres-Strasse) und von Amboina, II. Jena, Denkschr. med. Ges., 8, 1903, (653-682, 4 Taf.).

**Hentschel, E.** Gorgonacea von Amboina und Thursday Island. l.c. (643-652, mit 2 Taf.).

(n 2-9053)

**Hickson, S. J.** The Alcyonaria of the Maldives. I. The Genera *Xenia*, *Telesto*, *Spongodes*, *Nephtya*, *Paraspongodes*, *Chironephtya*, *Siphonogoria*, *Solenocaulon*, and *Melitodes*. [Gardiner's] Fauna Maldives, II, 1, (473-502, pls. XXVI-XXVII).

**Kassianow, N.** Ueber das Nervensystem der Alcyonarien. *Bergens Mus. Aarb.*, 1903, No. 6, (3).

**Krempf, Arm.** Sur un point de l'anatomie de quelques Hexacoralliaires. Paris, C.-R. Acad. sci., 136, 1903, (1210-1212).

**Kükenthal, W.** Versuch einer Revision der Alcyonarien. II. Die Familie der Nephtyiden. TI 1. Zool. Jahrb., Jena, Abt. f. Syst., 19, 1903, (99-172, mit 2 Taf.).

**Pratt, E. M.** The Alcyonaria of the Maldives. II. The genera *Sarcophytum*, *Lobophytum*, *Sclerophytum*, and *Alcyonium*. [Gardiner's] Fauna Maldives, II, 1, (503-539, pls. XXVIII-XXXI).

## SPECIAL.

*Acabaria amboinensis* n. sp. **Hentschel, E.** Jena, Denkschr. med. Ges., 8, 1903, (643-652, 2 Taf.).

*Acanthogorgia australiensis* n. sp. **Hentschel, E.** l.c. (642-652, 2 Taf.).

*Acanthomuricea* n. gen., *A. biserialis* n. sp. **Hentschel, E.** l.c. (643-652, 4 Taf.).

*Alcyonium sarcophytoides* n. sp. **Burchardt, E.** l.c. (653-682, 4 Taf.).

*Amphiacme* n. nom. = *Amphianthus* **Kükenthal, W.** Zool. Anz., Leipzig, 26, 1903, (272-275).

*Aulopammia* † nn. spp. **Felix, J.** Palaeontographica, Stuttgart, 49, 1903, (356-358, pl. XXII, fig. 9, 10).

*Bebryce stellata* n. sp. **Hentschel, E.** Jena, Denkschr. med. Ges., 8, 1903, (643-652, 2 Taf.).

*Capnella fungiformis* n. sp. **Kükenthal, W.** Zool. Jahrb., Jena, Abt. f. Syst., 19, 1903, (133, pl. VII, fig. 5, pl. IX, figs. 30-32).

*Chironephtya variabilis* n. sp. **Hickson, S. J.** Fauna Maldives, II, 1, (488-493).



*Clavularia* nn. spp. Burchardt, E., Jena, Denkschr. med. Ges., 8, 1903, (653-682, 4 Taf.).

*Corallium* nn. spp. Japan. Kishinouye, K. Zool. Anz., Leipzig, 26, 1903, (623-626),

— on six Japanese species. Japanese. Kishinouye, K. Dobuts. Z., Tokyo, 15, 1903, (103-106).

— *pusillum* n. sp., described in brief. Japanese. [Kishinouye, K.] l.c. (372).

*Halysites* †, description; *H. radiatus* † n. sp. Nebraska, Pleistocene. Whitfield, R. P. New York, N.Y., Bull. Amer. Mus. Nat. Hist., 19, 1903, (489-490, with 2 pls.).

*Lemnalina umbellata* n. sp. Kükenthal, W. Zool. Jahrb., Jena, Abt. f. Syst., 19, 1903, (139, pl. XII, fig. 6, pl. IX, figs. 33-35).

*Lithophytum* nn. spp. Kükenthal, W. l.c. (105-122).

*Metacyonium molle* n. sp. Burchardt, E. Jena, Denkschr. med. Ges., 8, 1903, (653-682, 4 Taf.).

*Neospongodes* n. gen., *N. bahiensis* n. sp. Kükenthal, W. Zool. Anz., Leipzig, 26, 1903, (272-275).

*Nephthya* nn. spp. Kükenthal, W. Zool. Jahrb., Jena, Abt. f. Syst., 19, 1903, (141-169).

— *amboinensis* n. sp. Burchardt, E. Jena, Denkschr. med. Ges., 8, 1903, (653-682, 4 Taf.).

*Renilla*, regeneration and embryology. Wilson, E. B. Wood's Holl, Maas., Mar. Biol. Lab. Bull., 4, 1903, (215-226).

*Sarcophytum* nn. spp. Pratt, E. M. Fauna Maldives, II, 1, (512-513).

— *gracile* n. sp. Burchardt, E. Jena, Denkschr. med. Ges., 8, 1903, (653-682, 4 Taf.).

*Sclerophytum* n. gen., *S. capitale*, *S. hirtum*, *S. palmatum*, *S. gardineri*, *S. durum*, *S. querciforme* nn. spp. Pratt, E. M. Fauna Maldives, II, 1, (516-532).

*Solenocaulon ramosa* n. sp. Hickson, S. J. l.c. (498-499).

*Spongodes* nn. spp. Burchardt, E. Jena, Denkschr. med. Ges., 8, 1903, (653-682, 4 Taf.).

*Telesto rubra* n. sp. Hickson, S. J. Fauna Maldives, II, 1, (480-481).

## ZOANTHARIA.

### GENERAL.

Arnold, R. The paleontology and stratigraphy of the marine Pliocene and Pleistocene of San Pedro, California. (Dissertation . . . Ieland Stanford Junior University . . . degree . . . Ph.D.). [Reprinted from San Francisco, Mem. Cal. Acad. Sci., 3,] in Stanford University Cal., Ieland Stanford Jr. Univ., Hopkins Seaside Lab., Cont. No. 31, 1903, (1-420, with pl.).

Bernard, H. M. Catalogue of the Madreporarian Corals in the British Museum (Natural History). IV. The family *Poritidae*. London, 1903, (VIII + 206, 14 pls.).

Carligen, O. Ueber die Regeneration der Seeanemonen. Helsingfors, Comptes rendus du Congrès des Naturalistes et Médecins du Nord tenu à Helsingfors du 7 au 12 Juillet 1902, 1903, VI Section, (9-11).

Duerden, J. E. West-Indian sponge-incrusting Actinians. [With bibliography.] New York, N.Y., Bull. Amer. Mus. Nat. Hist., 19, 1903, (495-503, with 4 pls.). Separate. 24.5 cm.

Felix, J. Verkiezelte Korallen als Geschiebe im Diluvium von Schlesien und Mähren. Centralbl. Min., Stuttgart, 1903, (561-577).

— Studien über die korallenführenden Schichten der oberen Kreideformation in den Alpen und den Mittelerrangebieten. Tl 1: Die Anthozoen der Gosauschichten in den Ostalpen. I. u. II. Hälfte. Palaeontographica, Stuttgart, 49, 1903, (163-360, 9 Taf.).

Foellie, M. The *Lithothamnium* of the Maldives and Laccadives. [Mentions corals on which *Lithothamnium* grows.] Fauna Maldives, 1, (160-471, pls. XXIV, XXV).

Gardiner, J. S. Lagoon deposits. I. General account. II. Report on certain deposits, by Sir J. Murray. l.c. II, 1, (581-588, pl. XXXIV.).

Richet, C. Des poisons contenus dans les tentacules des Actinies (congestine et thalassine). Paris, C.-R. soc. biol., 55, 1903, (246-248).

Vaughan, T. W. The corals of the Buda limestone [Texas]. [Appendix to Mollusca of the Buda limestone by G. B. Shattuck.] Washington, D.C., U. S. Dept. Int., Bull. Geol. Surv., No. 205, 1903, (37-40, with pl.).

## SPECIAL.

*Actinasis remesi* † n. sp. Felix, J. Centralbl. Minn., Stuttgart, 1903, (561-577).

*Aldrichiella* † n. var. (= *Aldrichia* † Vaughan, not Coquillett). Vaughan, T. W. Washington, D.C., Proc. Biol. Soc., 16, 1903, (101).

*Aplosmilia crucifera* † n. sp. Felix, J. Palaeontographica, Stuttgart, 49, 1903, (302, pl. XXIII, figs. 8-10).

*Astraraea* † n. gen. (= *Thamnastraea multiradiata*, etc.). Felix, J. l.c. (186).

*Astrogyna* † n. gen. (= *Gyrosimilia edwardsi* Reuss). Felix, J. l.c. (251).

*Astroides calycularis*, recherches expérimentales sur la régénération et l'hétéromorphose. Grefontaine, P. Arch. biol., Paris-Liège, 19, 1902, (245-315, av. 2 pl.).

*Bunodeopsis globulifera* Verrill. Duerden, J. E. London, Trans. Linn. Soc. Zool., (Ser. 2), 8, 1903, (297-317, 2 pls.).

*Caryophyllia* nn. spp. Vaughan, in Arnold, R. [Reprinted from San Francisco, Mem. Cal. Acad. Sci., 3]. in Stanford University, Cal. Leland Stanford Jr. Univ., Hopkins Seaside Lab., Cont. Biol. No. 31, 1903, (1-420).

*Ceratotrochus amphitrites* † n. sp. Felix, J. Palaeontographica, Stuttgart, 49, 1903, (163-360).

*Cerianthus*, regeneration. Child, C. M. Wood's Holl, Mass., Mar. Biol. Lab. Bull., 5, 1903, (239-260, 304-319, with text-fig.); *Ib.*, 6, 1903, (1-11, with text-fig.).

*Cyathoseris zitteli* n. sp. † Felix, J. Palaeontographica, Stuttgart, 49, 1903, (227, pl. XXII, fig. 2).

*Dimorphastraea traehneri* † n. sp. Felix, J. l.c. (214, pl. XXIII, fig. 14).

*Diphyphyllum billingsi* † n. sp. Greene, G. K. Contribution to Indiana palaeontology. Part XI. New Albany, Ind., 1903, (98-109).

(N 2-9053)

*Diploria latisinuata* † n. sp. Felix, J. Palaeontographica, Stuttgart, 49, 1903, (276, pl. XX, fig. 16).

*Discosoma* sp., case of commensalism with *Amphiprion intermedius*. Horst, B. Leiden, Notes Mus. Jentink, 23, 1903, (180-182).

*Elasmocoenia kittiana* † n. sp. Felix, J. Palaeontographica, Stuttgart, 49, 1903, (301).

*Endopachys* † Lonsdale (= *Rhectopacammia* † Vaughan). Vaughan, T. W. Washington, D.C., Proc. Biol. Soc., 16, 1903, (101).

*Eridophyllum louisvillensis* † n. sp. Greene, G. K. Contribution to Indiana palaeontology. Part XI. New Albany, Ind., 1903, (98-109).

*Favosites helderbergias* var. *praeedens* † n. var. New York, Silurian. Schuchert, C. Amer. Geol., Minneapolis, Minn., 31, 1903, (160-178).

*Fossopora* † n. gen. Etheridge, R., jun. Sydney, N.S.W., Rec. Austr. Mus., 5, 1903, (16-19, with 2 pls.).

*Goniopora*, the genus. Bernard, H. M. Catalogue of madreporarian corals in the British Museum (Natural History). London, 1903, IV, 1, (VIII + 206, 14 pls.).

*Haplaraea pratzii* † n. sp. Felix, J. Palaeontographica, Stuttgart, 49, 1903, (184, pl. XVII, fig. 1).

*Haplohelix ornata* † n. sp. Felix, J. l.c. (823, pl. XVII, figs. 15, 16).

*Heliophyllum* † nn. spp. Greene, G. K. Contribution to Indiana palaeontology. Pt. 15. New Albany, Indiana, 1903, (146-155, with pl.).

*Heterastraea rhaetica* † n. sp. Gloucestershire. Tomes, R. F. London, Q. J. Geol. Soc., 59, 1903, (403-407, 2 figs.).

*Heterocoenia* † nn. spp. Felix, J. Palaeontographica, Stuttgart, 49, 1903, (231, 235, 237-238).

*Hyduophora kossmati* n. sp. † Felix, J. l.c. (281, pl. XXII, fig. 8).

*Lasomogyra* † nn. spp. Felix, J. l.c. (246, 247, pl. XXI, figs. 4, 6-8, 12).

*Latimacandraeae* † nn. spp. Felix, J. l.c. (222-224, pl. XX, fig. 18, pl. XXIII, fig. 7).

*Litharaea*† un. spp. **Felix, J. l.c.** (179-180, pl. XX, figs. 17-19).

*Montilacilia latona*† n. sp. **Felix, J. l.c.** (240, pl. XXII, fig. 4).

*Oulina* nn. spp.† **Felix, J. l.c.** (322-323, pl. XXIV, fig. 8, pl. XXIII, figs. 4, 5).

*Orbicella* (?) *texana*† n. sp. Buda Limestone, Texas. **Vaughan, T. W.** Washington, D.C., U. S. Dept. Int. Bull. Geol. Surv., No. 205, 1903, (38).

*Pachygyra microphytes*† n. sp. **Felix, J. Palaeontographica, Stuttgart, 49, 1903, (311, pl. XXIV, fig. 1).**

*Paracyathus pedroensis*† n. sp. **Vaughan, in Arnold, R.** [Reprinted from San Francisco, Mem. Cal. Acad. Sci., 3.] in Stanford University, Cal., Leland Stanford Jr. Univ., Hopkins Seaside Lab., Cont. Biol., No. 31, 1903, (1-420).

*Parasmilia texana*† n. sp. Buda limestone, Texas. **Vaughan, T. W.** Washington, D.C., U. S. Dept. Int. Bull. Geol. Surv., No. 205, 1903, (37).

*Pennaria carolinii*, recherches expérimentales sur la régénération et l'hétéromorphose. **Cerfontaine, P.** Arch. biol., Paris-Liège, 19, 1902, (245-315, av. 2 pls.).

*Phyllocoenia roashensis*† n. sp. **Dacqué, E.** Palaeontographica, Stuttgart, 30, II, 1903, (53, pl. III, fig. 1).

*Phyllosmilium*† nn. spp. **Felix, J. l.c.** (342-346, pl. XVIII, figs. 3-4, 9-11).

*Placocoenia major*† n. sp. **Felix, J. l.c.** (298, pl. XX, fig. 1).

*Placohelia bigemmis*† n. sp. **Felix, J. l.c.** (325, pl. XXII, figs. 12-13).

*Placosmilium europheila*† n. sp. **Felix, J. l.c.** (339, pl. XXIV, fig. 3).

*Plesiophyllia acrisionae*† n. sp. **Felix, J. l.c.** (241).

*Protoseris cretacea*† n. sp. **Felix, J. l.c.** (228, pl. XX, figs. 11-13).

*Psilogyra*† n. gen., *P. telleri*† n. sp. **Felix, J. l.c.** (308, pl. XXIV, fig. 4).

*Romingeria*† observations on, nn. spp. **Beecher, C. E.** [Reprinted from the Amer. J. Sci., New Haven, Conn., 16, 1903], (1-11, with 5 pl.).

*Stenogyra sinuosa*† n. sp. **Felix, J. Palaeontographica, Stuttgart, 47, 1903, (307, pl. XXI, fig. 15).**

*Thamnaraea*† nn. spp. **Felix, J. l.c.** (182, 183, pl. XXIII, fig. 6, pl. XVII, figs. 10, 11).

*Thamnastraea*† nn. spp. **Felix, J. l.c.** (204, 208, 210, pl. XVII, fig. 8, pl. XXII, fig. 3, pl. XXIII, figs. 1-10).

*Trochocyathus* nn. spp. **Funafuti. Bourne, G. C.** London, J. Linn. Soc., Zool., 29, No. 187, 1903, (27-32, pl. V, figs. 2-7, pl. VI).

*microphytes*† n. sp. **Felix, J. Palaeontographica, Stuttgart, 49, 1903, (354, pl. XVIII, figs. 9, 10).**

*Trochosmilium*† nn. spp. **Felix, J. l.c.** (327, 331, 332, pl. XVIII, fig. 7, pl. XXIV, figs. 3-7, 12).

## CTENOPHORA.

### GENERAL.

**Moser, F.** Die Ctenophoren der Siboga-Expedition. Résultats des explorations zool., botan., océanogr., géol., entreprises à bord du Siboga, publiés par Max Weber. Livr. 11, Monogr. 12. Leide (E. J. Brill), 1903, (34, mit 4 Taf.) 33 cm.

### SPECIAL.

*Beroë pandorina* n. sp. **Moser, F.** Die Ctenophoren der Siboga Expedition. Livr. 11, Monogr. 12, 1903, (24, pl. III, figs. 1-8, pl. IV, figs. 4-6).

*Hormiphora sibogae* n. sp. **Moser, F. l.c.** (13, pl. II, figs. 1-3).

*Lampetia elegans* n. sp. **Moser, F. l.c.** (15, pl. I, fig. 7).

*Pleurobrachia* nn. spp. **Moser, F. l.c.** (7, 8, pl. I, figs. 1-6, pl. IV, figs. 1-3).

## LIST OF NEW GENERA AND SPECIES.

ACABARIA [Alcyonaria].

— *amboinensis*. Hentschel. 56.

ACANTHOGORGIA [Alcyonaria].

— *australensis*. Hentschel. 56.

ACANTHOMURICEA n. gen. [Alcyonaria]. Hentschel. 56.

— *biserialis*. Hentschel. 56.

ACTINASIS [Zoantharia].

— *remeki*†. Felix. 30.

- AEQUEORA** [Hydromedusae].  
 — *norvegica*. Browne. 13.
- ALCYONIUM** [Alcyonaria].  
 — *sarcophytoides*. Burchardt. 15.
- Aldrichiella**† n. nom. [Zoantharia].  
 Vaughan. 108.
- Amphiacme** n. nom. [Alcyonaria].  
 Kükenthal. 72.
- AMPHIGRAPTUS** [Graptolites].  
 — *distans*†. Elles & Wood. 27.
- ANSTENULARIA** [Hydromedusae].  
 — *variabilis*. Broch. 11.
- APLOSMILIA** [Zoantharia].  
 — *crucifera*†. Felix. 29.
- §Astraraea**† n. gen. [Zoantharia]. Felix. 29.
- §Astrogysa**† n. gen. [Zoantharia]. Felix. 29.
- AULOPSAMMIA** [Alcyonaria].  
 — *lithothamniodes*†. Felix. 29.  
 — *reptans*†. Felix. 29.  
 — *vermiculata*†. Felix. 29.
- BEERYOE** [Alcyonaria].  
 — *stellata*. Hentschel. 56.
- BEROË** [Ctenophora].  
 — *pandorina*. Moser. 79.
- BROOKSELLA** [Hydromedusae].  
 — *rhenana*†. Kinkelin. 66.
- Bythotia** n. gen. [Hydromedusae].  
 — Günther. 50.  
 — *murrayi*. Günther. 50.
- CAPNELLA** [Alcyonaria].  
 — *fungiformis*. Kükenthal. 73.
- CARYOPHYLLIA** [Zoantharia].  
 — *californica*†. Vaughan. 2.  
 — *pedroensis*†. Vaughan. 2.
- CASSIOPEIA** [Scyphomedusae].  
 — *andromeda* var. *malayensis* n. var. Maas. 75.  
 — *ornata* var. *digitata*. n. var. Maas. 75.
- CERATELLA** [Hydromedusae].  
 — *minima*. Hickson. 59.
- †CERATOTROCHUS** [Zoantharia].  
 — *amphitrites*†. Felix. 29.
- CHIRONEPHTHYA** [Alcyonaria].  
 — *variabilis*. Hickson. 62.
- CLAVULARIA** [Alcyonaria].  
 — *amboinensis*. Burchardt. 15.  
 — *coronata*. Burchardt. 15.
- CODONIUM** [Hydromedusae].  
 — *apiculum*. Murbach & Shearer. 83.
- CORALLIUM** [Alcyonaria].  
 — *boshuensis*. Kishinouye. 70.  
 — *inutile*. Kishinouye. 70.  
 — *japonicum*. Kishinouye. 70.  
 — *konoji*. Kishinouye. 70.  
 — *pusillum*. Kishinouye. 69.  
 — *sulcatum*. Kishinouye. 70.
- Crambione** n. gen. [Scyphomedusae].  
 — Maas. 75.  
 — *mastigophora*. Maas. 75.
- CROSSOSTOMA** [Scyphomedusae].  
 — *anadyomene*. Maas. 75.
- CIATHOSERIS** [Zoantharia].  
 — *zittelii*†. Felix. 29.
- CYTAEIS** [Hydromedusae].  
 — *minima*. Trinci. 105.
- Dichotomia** n. gen. [Hydromedusae].  
 — Brooks. 12.  
 — *cannoides*. Brooks. 12.
- DINORPHA STRAEA** [Zoantharia].  
 — *wachneri*†. Felix. 29.
- DIPHYPHYLLUM** [Zoantharia].  
 — *billingsii*†. Greene. 46.
- DIPLORIA** [Zoantharia].  
 — *latisinuata*†. Felix. 29.
- ELASMOCOENIA** [Zoantharia].  
 — *külliana*†. Felix. 29.
- ERIDOPHYLLUM** [Zoantharia].  
 — *louisvillensis*†. Greene. 46.
- FAVOSITES** [Zoantharia].  
 — *helderbergiae* var. *praece-*  
*dens*† n. var. Schuchert. 95.
- Fossopora** n. gen. [Zoantharia]. Etheridge. 28.
- GONIONEMUS** [Hydromedusae].  
 — *agassizii*. Murbach & Shearer. 83.
- Gonomeandrus** n. gen. [Hydromedusae].  
 — Kirkpatrick. 67.  
 — *chrysostephanus*. Kirkpatrick. 67.
- HALECIUM** [Hydromedusae].  
 — *minutum*. Broch. 11.
- HALICORNARIA** [Hydromedusae].  
 — *pluma*. Broch. 11.
- HALYSITES** [Alcyonaria].  
 — *radiatus*†. Whitfield. 112.

- HAPLARAEA** [Zoantharia].  
 ——— *pratsi*†. Felix. 29.
- HAPLOHELIA** [Zoantharia].  
 ——— *ornata*†. Felix. 29.
- HELIOPHYLLUM** [Zoantharia].  
 ——— *conglomeratum*†. Greene. 47.  
 ——— *congregatum*†. Greene. 47.
- HETERASTRAEA** [Zoantharia].  
 ——— *rhaetica*. Tömes. 104.
- HETEROCOENIA** [Zoantharia].  
 ——— *costata*†. Felix. 29.  
 ——— *erecta*†. Felix. 29.  
 ——— *fuchsi*†. Felix. 29.  
 ——— *oculinaeformis*†. Felix. 29.  
 ——— *stachei*†. Felix. 29.
- HORMIPHORA** [Ctenophora].  
 ——— *sibogae*. Moser. 79.
- HYDNOPHORA** [Zoantharia].  
 ——— *kossmati*†. Felix. 29.
- HYDRA** [Hydromedusae].  
 ——— *pallida*. Beardsley. 3.
- HYDROCTENA** [Hydromedusae].  
 ——— *salenskii*. Davydov. 23.
- LAFOEÆ** [Hydromedusae].  
 ——— *elegantula*. Broch. 11.
- LAMPETIA** [Ctenophora].  
 ——— *elegans*. Moser. 79.
- LAODICE** [Hydromedusae].  
 ——— *chapmani*. Günther. 50.
- LASMOGYRA** [Zoantharia].  
 ——— *gracilis*†. Felix. 29.  
 ——— *tortuosa*†. Felix. 29.
- LATIMAEANDRARAEA** [Zoantharia].  
 ——— *douvilléi*†. Felix. 29.  
 ——— *lophiophora*†. Felix. 29.
- LEMNALIA** [Alcyonaria].  
 ——— *umbellata*. Kükenthal. 73.
- LEPTOGRAFTUS** [Graptolites].  
 ——— *ascendens*†. Elles and Wood. 27.  
 ——— *flaccidus* var. *arcuatus*† n. var. Elles and Wood. 27.  
 ——— var. *macer*† n. var. Elles and Wood. 27.  
 ——— var. *spinifer*† n. var. Elles and Wood. 27.  
 ——— *latus*†. Elles and Wood. 27.
- LITHARAEA** [Zoantharia].  
 ——— *latistellata*†. Felix. 29.  
 ——— *vaughani*†. Felix. 29.
- LITHOPHYTUM** [Alcyonaria].  
 ——— *armatum*. Kükenthal. 73.  
 ——— *confertum*. Kükenthal. 73.  
 ——— *formosanum*. Kükenthal. 73.
- MARGELIS** [Hydromedusae].  
 ——— *nordgaardii*. Browne. 13.
- MARGELOPSIS** [Hydromedusae].  
 ——— *harlaubii*. Browne. 13.
- MASTIGIAS** [Scyphomedusae].  
 ——— *papua* var. *sibogae* n. var. Maas. 75.
- MESONEMA** [Hydromedusae].  
 ——— *victoria*. Murbach and Shearer. 83.
- METALOTONIUM** [Alcyonaria].  
 ——— *molle*. Burchardt. 15.
- MITROCOMELLA** [Hydromedusae].  
 ——— *fulva*. Browne. 13.
- MONTIVALTIA** [Zoantharia].  
 ——— *latona*†. Felix. 29.
- NEMAGRAPTUS** [Graptolites].  
 ——— *gracilis* var. *remotus*† n. var. Elles and Wood. 27.
- Neospongodes** n. gen. [Alcyonaria].  
 ——— Kükenthal. 72.  
 ——— *bahiensis*. Kükenthal. 72.
- NEPHTHYA** [Alcyonaria].  
 ——— *amboinensis*. Burchardt. 15.  
 ——— *brassica*. Kükenthal. 73.  
 ——— *crassa*. Kükenthal. 73.  
 ——— *cupressiformis*. Kükenthal. 73.  
 ——— *erecta*. Kükenthal. 73.  
 ——— *formosana*. Kükenthal. 73.  
 ——— *pacifica*. Kükenthal. 73.  
 ——— *sphaerophora*. Kükenthal. 73.  
 ——— *striata*. Kükenthal. 73.  
 ——— *thujaria*. Kükenthal. 73.  
 ——— *tongaensis*. Kükenthal. 73.
- NETROSTOMA** [Scyphomedusae].  
 ——— *coerulescens*. Maas. 75.
- OCULINA** [Zoantharia].  
 ——— *ogilvea*†. Felix. 29.  
 ——— *schlosseri*†. Felix. 29.
- ORBICELLA** [Zoantharia].  
 ——— *texana*†. Vaughan. 109.
- PACHYGYRA** [Zoantharia].  
 ——— *microphyes*†. Felix. 29.
- PARACTATHUS** [Zoantharia].  
 ——— *pedroensis*†. Vaughan. 2.
- Paraphyllina** n. gen. [Scyphomedusae].  
 ——— Maas. 75.  
 ——— *intermedia*. Maas. 75.

- PARAFMILIA** [Zoantharia].  
 — *texana*†. Vaughan. 109.
- PHYLOCOENIA** [Zoantharia].  
 — *roaensis*†. Daqué. 22.
- PHYLOGRAPTUS** [Graptolites].  
 — *cor*†. Strandmark. 99.
- PHYLOSOMILIA** [Zoantharia].  
 — *aegiale*†. Felix. 29.  
 — *diversicostata*†. Felix. 29.  
 — *transiens*†. Felix. 29.
- PLACOCOENIA** [Zoantharia].  
 — *major*†. Felix. 29.
- PLACOHELLIA** [Zoantharia].  
 — *bigenmis*†. Felix. 29.
- PLACOSMILIA** [Zoantharia].  
 — *europhila*†. Felix. 29.
- PLESIOPHYLLIA** [Zoantharia].  
 — *acrisionae*†. Felix. 29.
- PLEUROBRACHIA** [Otenophora].  
 — *globosa*. Moser. 79.  
 — *pigmentata*. Moser. 79.
- POLYORCHIS** [Hydromedusae].  
 — *minuta*. Murbach and Shearer. 83.
- PROTOSERIS** [Zoantharia].  
 — *cretacea*†. Felix. 29.
- Psillogyra**† n. gen. [Zoantharia] Felix. 29.  
 — *telleri*†. Felix. 29.
- ROMINGERIA** [Zoantharia].  
 — *commutata*†. Beecher. 5.  
 — *jacksoni*†. Beecher. 5.  
 — *minor*†. Beecher. 5.
- SARCOPHYTUM** [Alcyonaria].  
 — *gracile*. Burchardt. 15.  
 — *roseum*. Pratt. 90.  
 — *tenuis*. Pratt. 90.
- SARSIA** [Hydromedusae].  
 — *princeps*. Browne. 13.
- Sclerophytum** n. gen. [Alcyonaria].  
 — Pratt. 90.  
 — *capitale*. Pratt. 90.  
 — *durum*. Pratt. 90.  
 — *gardineri*. Pratt. 90.  
 — *hirtum*. Pratt. 90.  
 — *palmatum*. Pratt. 90.  
 — *querciforme*. Pratt. 90.
- SOLENOCAULON** [Alcyonaria].  
 — *ramosa*. Hickson. 62.
- SPONGODES** [Alcyonaria].  
 — *brevirama*. Burchardt. 15.  
 — *costatocyanea*. Burchardt. 15.  
 — *planoregularis*. Burchardt. 15.
- STENOGYRA** [Zoantharia].  
 — *sinuosa*†. Felix. 29.
- TELESTO** [Alcyonaria].  
 — *rubra*. Hickson. 62.
- THAMNARAEA** [Zoantharia].  
 — *cladophora*†. Felix. 29.  
 — *lithodes*†. Felix. 29.
- THAMNASTRAEA** [Zoantharia].  
 — *carinata*†. Felix. 29.  
 — *leptophylla*†. Felix. 29.  
 — *montuosa*†. Felix. 29.
- THUIARIA** [Hydromedusae].  
 — *horti*. Broch. 11.
- TROCHOCYATHUS** [Zoantharia].  
 — *hastatus*. Bourne. 10.  
 — *microphyes*†. Felix. 29.  
 — *vasiformis*. Bourne. 10.
- TROCHOSMILIA** [Zoantharia].  
 — *chondrophora*†. Felix. 29.  
 — *didymophila*†. Felix. 29.  
 — *leptogramma*†. Felix. 29.  
 — *psecadiophora*†. Felix. 29.
- TURRIS** [Hydromedusae].  
 — *breviconis*. Murbach and Shearer. 83.



## 1003-1031 ECHINODERMATA.

## TITLES.

- Arnaud, H.** Les *Echinocorys* de Tercis (Landes). Bordeaux, Actes. soc. lin., (sér. 6), 7, 1902, (29-39, av. 9 pl.). [1031]. 1
- Ball, F. J.** [Exhibition of, and remarks upon, a Holothurian of the genus *Actinopyga*.] London, Proc. Zool. Soc., 1903, 1, (192). [1023 1015 1031]. 2
- Report on a collection of Echinoderms from the neighbourhood of Zanzibar. Part I. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (244-248). [1027 ff]. 3
- Actinogonidiata Echinoderms. Fauna of the Maldives and Laccadive Archipelagoes, 1, (223-233). [1027 ma 1031]. 4
- Blake, J. H.** The geology of the country around Reading. [The notes on the Chalk are by A. J. Jukes-Browne.] Mem. geol. Surv. Eng., London, 1903, (Explanation of sheet 268), (92, with 13 text-figs.) [1027 de 2227 de]. 5
- Blanford, W. T.** The "Tanganyika Problem." Correspondence. London, Geog. J., 22, 1903, (92-96). [1027 ff]. 6
- Boveri, Marcella.** Ueber Mitosen bei einseitiger Chromosomenbindung. Jenaische Zs. Natw., 37, 1903, (401-446, mit 3 Taf.). [1015]. 7
- Caullery, Maurice et Siedlecki, Michel.** Sur la résorption phagocytaire des produits génitaux inutilisés chez l'*Echinocardium cordatum*, Penn. Paris, C.-R. Acad. sci., 137, 1903, (496-498); [abstract], London, J. R. Microsc. Soc., 1903, (727-728). [1011 1031]. 8
- Cockersell, T. D. A.** The name *Solenopsis*. Nature, London, 67, 1903, (559). [1031]. 10
- Delage, Yves.** Elevage des larves parthénogénétiques d'Astéries dues à l'action de l'acide carbonique. Paris, C.-R. Acad. sci., 137, 1903, (449-451). [0211 0215 1015 1031]. 11
- La parthénogenèse par l'acide carbonique, obtenue chez les œufs après l'émission des globules polaires. Paris, C.-R. Acad. sci., 137, 1903, (473-475); [abstract], London, J. R. Microsc. Soc., 1904, (187). [0211 0215 1015]. 12
- Sur la non-régénération des sphéridies chez les oursins. Paris, C.-R. Acad. sci., 137, 1903, (681-682); [abstract], London, J. R. Microsc. Soc., 1904, (66). [0215 1011 1031]. 13
- Döderlein, Ludwig.** Bericht über die von Herrn Professor Semon bei Amboina und Thursday Island gesammelten Echinoidea. Jena, Denkschr. med. Ges., 8, 1903, (683-726, mit 8 Taf.). [1031 1027 ia]. 14
- Doncaster, L.** Experiments in hybridisation, with special reference to the effect of conditions on dominance. London, Phil. Trans. R. Soc., 196, B, (119-173, with 10 text figs.); [Prelim. Abstracts], London, Proc. R. Soc., 61, 1903, (497); Nature, London, 68, 1903, (94). [1023 1015 0223]. 15
- On rearing the later stages of echinoid larvae. Cambridge, Proc. Phil. Soc., 13, 1903, (47-49). [Author's reprints paged 48-50. Why?] [Prelim. Abstract], Nature, London, 67, 1903, (215); [abstract], London, J. R. Microsc. Soc., 1903, (183). [1031 1015]. 16
- Fearnside, W. G.** On some new fossils from Penmorfa, and their bearing on the Cambro-Ordovician Succession near Tremadoc. London, Rep. Brit. Ass., 1902, (614-615). [1027 de 2827 de]. 17



**Fischer, Martin H.** How long does (*Arbacia*) sperm live in sea-water? Amer. J. Physiol., Boston, Mass., **8**, 1903, (430-434). [0215 1015]. 18

**Fourteau, R.** Note sur l'*Hemiaster cubicus* Desor, et ses variations. Bul. Muséum, Paris, 1903, (177-180). [1031]. 19

**Fox-Strangways, C.** The geology of the country near Leicester. Mem. geol. Surv. Eng., London, 1903, (Explanation of sheet 156), (vi + 122, ii pls., 15 text-figs.). [1027 de]. 20

**Fritel, P. H.** Echinodermes fossiles. Les oursins. Naturaliste, Paris, (sér. 2), **24**, 1902, (185-188, av. fig.). [1031]. 21

**Fühner, Hermann.** Ueber die Einwirkung verschiedener Alkohole auf die Entwicklung der Seeigel. Arch. exper. Path., Leipzig, **51**, 1903, (1-10). [1015 1031]. 22

**Garbowaki, Tad[eusz].** Contribution à l'étude de la parthénogenèse artificielle chez les astéries. (Polouaisa) Kraków, Rozpr. Akad., B, **43**, 1903, (570-610, av. 1 pl.). [1011 1015 1031]. 23

——— Über parthenogenetische Entwicklung der Asteriden. Kraków, Bull. Intern. Acad., **1903**, (810-830, mit 1 pl.). [1015 1031]. 24

**Gardiner, J. S.** The breaking-up of coral rock by organisms in the Tropics. London, Rep. Brit. Ass., **1902**, (654, 655); [Prelim. Abstract] Nature, London, **66**, 1902, (641). [1019 1819 0819]. 25

**Gill, E. L.** Note on the occurrence of Keisley Limestone-Pebbles in the red sandstone-rocks of Peel (Isle of Man). London, Q. J. Geol. Soc., **59**, 1903, (307-310). [0827 2827 2027 1027 2227 de]. 26

**Gordon, M. M. Ogilvie.** The geological structure of Monzoni and Fassa. Edinburgh, Trans. Geol. Soc., **8**, 1903, (sp. part X + 180, with 18 pls., 2 maps and 33 text-figs.). [1027 dk 2027 dk 0827 dk]. 27

**Gorham, F[rederic] F[oolle] and Tower, R. W.** Does potassium cyanide prolong the life of the unfertilized egg of the sea-urchin? Amer. J. Physiol., Boston, Mass., **8**, 1903, (175-182). [0215 1015 1031]. 28

**Grabau, Amadeus W[illiam].** Notes on the development of the biserial arm in certain crinoids. Amer. J. Sci., New Haven, Conn., (Ser. 4), **16**, 1903, (289-300); [abstract], London, J. R. Microsc. Soc., **1903**, (728). [1015 1031]. 29

**Grave, Caswell.** On the occurrence among Echinoderms of larvae with cilia arranged in transverse rings, with a suggestion as to their significance. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **5**, 1903, (169-186, with text fig.). [1015 1023]. 30

——— Some points in the structure and development of *Mellita testudinata*. Baltimore, Md., Johns Hopkins Univ. Cir., **21**, 1902, (57-59). [1007 1015 1031]. 31

**Greeley, Arthur W.** On the effect of variations in the temperature upon the process of artificial parthenogenesis. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **4**, 1903, (129-136). [0211 0215 1015 1031]. 32

**Greene, George K.** Contribution to Indiana palaeontology. Parts XI-XV. New Albany, Ind., 1903, (98-155, with pl.). [0827 gg 0831 1031]. 33

**Grieg, James A.** Echinodermen von dem norwegischen Fischereilampfer „Michael Sars“ in den Jahren 1900-1903 gesammelt. I. Ophiuroidea. Bergens Mus. Aarb., **1903**, No. 13, (45, with 4 fig.). [1027 ka la 1031]. 34

**Guenther, Konrad.** Ueber den Nucleolus im reifenden Echinodermenei und seine Bedeutung. Zool. Jahrb., Jena, Abt. f. Anat., **19**, 1903, (1-28, mit 1 Taf.). [1015]. 35

**Hambach, G.** Revision of the Blastoida, with a proposed new classification, and description of new species. St. Louis, Mo., Trans. Acad. Sci., **13**, 1903, (1-67, with pl.). [1031]. 36

**Henri, Victor.** Étude des contractions musculaires et des réflexes chez le *Stichopus regalis*. Paris, C.-R. Acad. sci., **137**, 1903, (669-670). [1011 1031]. 37

——— et Lalou, S. Régulation osmotique des liquides internes chez les Echinodermes. Paris, C.-R. Acad. sci., **137**, 1903, (721-723); [abstract], London, J. R. Microsc. Soc., **1904**, (66). [1011]. 38

**Herdman, W. A.** Port Erin Biological Station, Guide to the Aquarium, &c. Liverpool, 1902, (44, 22 text-fig.) 3d. [Reprint], Liverpool, Proc. Biol. Soc., 18, 1902, (65-108). [1003]. 39

——— and **Thompson, I. C.** Echinodermata in: The marine fauna and fisheries of the district. In Handbook Brit. Assoc. Southport, 1903, (167). [1027 de]. 40

**Key, W. C.** Shore-collecting near Scarborough and Filey. Naturalist, London, 1903, (344-348). [2227 de 2627 de 1027 de]. 41

**Hind, W.** Life-zones in the British Carboniferous Rocks. Report of the Committee. London, Rep. Brit. Ass., 1902, (210-224). [1027 de 5427 de 2027 de 2227 de]. 42

**Horne, J.** Obituary notice of the late Mr. Bennie. Edinburgh, Trans. geol. Soc., 8, 1903, (187-193.) [0010 1003]. 43

**Hunter, [Samuel] J[ohn].** On the conditions governing the production of artificial parthenogenesis in *Arbacia*. Wood's Holl, Mass., Mar. Biol. Lab. Bull., 5, 1903, (143-151). [0211 1015 1031]. 44

**Jaekel, [Otto].** [*Tiara crinus tetraedra* n. sp.] Berlin, Jahrb. geol. Landesanst., 21, 1901, Abh. Mitarb., (77). [1031] 45

**Jansems, F. A.** Production artificielle de larves géantes chez un Echinide. Paris, C.-R. Acad. sci., 187, 1903, (274-276). [0215 1015 1031]. 46

**Jukes-Browne, A. J.** On the zones of the Upper Chalk in Suffolk. London, Proc. Geol. Ass., 18, 1903, (85-94, pl. XVI). [2027 de 0627 de 5427 de 1027 de 0827 de]. 47

——— Devonshire in the time of the Lower Chalk. Plymouth, Rep. Devon. Ass., 35, 1903, (787-799, 1 pl.). [1027 de 2027 de 2227 de]. 48

**Katzer, Friedrich.** Grundzüge der Geologie des unteren Amazonasgebietes (des Staates Pará in Brasilien). Leipzig (M. Weg), 1903, (III+298, mit 4 Portr., 1. Karte). 26 cm. 14 M. [0227 hh 1027 hh 1031 2031 2831]. 49

**King, Helen Dean.** Further studies on regeneration in *Asterias vulgaris* [with bibliography]. [Reprinted from the Archiv für Entwicklungsmechanik der

Organismen, 10, 1900]. Bryn Mawr, Pa., Bryn Mawr Coll. Monogr., (Repr. Ser.), 1, 1901, (723-737). [0211 1011 1031]. 50

**Koehler, R.** Zoologie. Echinides et ophuïres. In: Expédition antarctique belge. Résultats du voyage du S.Y. "Belgica" en 1897-99. Rapports scientifiques. Anvers (Imprimerie J. E. Buschmann), 1902, (42, av. 8 pls.). 17.50 fr. [1027 o 1031]. 51

——— et **Vaney, C.** *Entosiphon diematis*, nouveau mollusque parasite d'une Holothurie abyssale. Rev. Suisse Zool., Genève, 11, 1903, (23-41, 1 pl.). [2219 2231 1019 1031]. 52

**Lamplugh, G. W.** The Geology of the Isle of Man. Mem. Geol. Surv. UK., London, 1903, (XIV+620, V pls., 109 text-figs.). [1027 de]. 53

——— and **Walker, J. F.** On a fossiliferous band at the top of the Lower Greensand near Leighton Buzzard (Bedfordshire). London, Q. J. Geol. Soc., 59, 1903, (234-265, pls. XVI-XVIII, 2 text-figs.). [1827 de 2027 de 2031 2231 2227 de 1027 de]. 54

**Leiper, R. T.** On an Acoelous Turbellarian inhabiting the common heart-urchin. London, Rep. Brit. Ass., 1902, (652, 653). [1019 1031 1219 1231]. 55

**Lissajous.** Echinides jurassiques des environs de Mâcon. Mâcon, Bul. soc. sci. nat., 2, 1903, (97-111, 157-184, av. 2 pls.). [1031 1027 df]. 56

**Loeb, Jacques.** A method by which the eggs of a sea-urchin (*Strongylocentrotus purpuratus*) can be fertilized with the sperm of a starfish (*Asterias ochracea*). Berkeley, Univ. Cal., Pub. Physiol., 1, 1903, (1-3). [0215 1015 1023]. 57

——— The fertilization of the egg of the sea-urchin by the sperm of the star-fish. [Address before the Sigma Xi Scientific Society at Stanford University, October 13, 1903.] Berkeley, Univ. Cal., Pub. Physiol., 1, 1903, (39-53). Separate 27.3 cm. [0215 1015 1023]. 58

**Ludwig, H[ubert].** Echinodermen (Stachelhäuter). Fortges. v. Otto Hamann. (H. G. Bronn's Klassen u. Ordnungen des Thier-Reichs, Bd 2, Abt. 3, 1. f. 41-48, 62-64.) Leipzig (C. F.

Winter), 1901-1903, (I-V, 953-1094, 1303-1366, mit Taf.). 26 cm. 12 + 4,50 M. [1003] 59

**MacBride, E. W.** The development of *Echinus esculentus*, together with some points in the development of *E. miliaris* and *E. acutus*. London, Phil. Trans. R. Soc., 195 B, 1903, (285-327, pls. VII-XVI). London (Dulan), 1903. 8s. 6d. [1015 1031]. 60

——— The development of the common sea-urchin (*Echinus esculentus*). London, Rep. Brit. Ass., 1902, (647). [1015 1031]. 61

——— Report on a small collection of Echinoderm larvae made by Mr. George Murray, F.R.S., during the cruise of the "Oceana" in November, 1898. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (477-478). [1015]. 62

**McHenry, A. et alii.** The geology of the country around Dublin. Mem. geol. Surv. Ireland, Dublin, (Explanation of sheet 112), (viii + 160, v. pls., 21 text-figs.). [1027 de]. 63

**McIntosh, D. C.** Variation in "*Ophiocoma nigra*" (O. F. Müller). Biometrika, Cambridge, 2, 1903, (463-473, 10 text-figs.); [abstract], London, J. R. Microsc. Soc., 1904, (188). [1023 0223 1031]. 64

**Meijere, J[ohannes] C[ornelis] H[endrik] de.** Vorläufige Beschreibung der neuen, durch die Siboga-Expedition gesammelten Echiniden. Helder, Tijdschr. Ned. Dierk. Ver., 8, 1903, (1-16). [1027 eg ia 1031]. 65

**Mitsukuri, K[akichi].** Notes on the habits and life-history of *Stichopus japonicus* Selenka. Annot. Zool. Jap., Tokyo, 5, 1903, (1-21). [1015 1019 1031]. 66

**Monks, Sarah P.** Regeneration of the body of a starfish. [*Phataria (Linckia) fascialis*]. [Abstracts], Philadelphia, Pa., Proc. Acad. Nat. Sci., 55, 1903, (351); London, J. R. Microsc. Soc., 1903, (616). [0211 1011 1031]. 67

**Mortensen, Th.** *Chaetodiadema granulatum* n. g. n. sp. A new Diadematid from the Gulf of Siam. Kjöbenhavn, Nath. Medd., 1903, (1-4). [1027 ee 1031]. 68

——— *Lissodiadema* nouveau genre de Diadematides. Rev. Suisse

Zool., Genève, 11, 1903, (393-398, 4 figs.). [1027 eg 1031]. 69

**Nicholls, A. R.** A list of Irish echinoderms. Being a report from the Fauna and Flora Committee. Dublin, Proc. R. Irish Acad., (Ser. 3), 24, Sect. B, 1903, (231-267, with 1 text-fig.); [abstract], London, J. R. Microsc. Soc., 1903, (728). [1027 de 1031]. 70

——— Echinodermata: in A Guide to Belfast, &c. by the Belfast Naturalists' Field Club. Belfast (McCaw & Co.), 1902, (231-233). 18.5 x 12 cm. [1027 de]. 71

**Norman, A. M.** Notes on the Natural History of East Finmark. Echinodermata. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (406-417, pl. XXVII). [1015 1027 db]. 72

**Oppenheim, Paul.** Ueber die Fossilien der Blättermergel von Theben. München, SitzBer. Ak. Wiss., math.-physik. Cl., 32, (1902), 1903, (435-456, mit 1 Taf.). [0231 1031 1027 fb 2231]. 73

**Östergren, Hjalmar.** The Holothurioida of Northern Norway. Bergens Mus. Aarb., 1903, No. 9, 1903, (34). [1027 da ka 1031]. 74

**Paulcke, W.** Ueber die Kreideformation in Südamerika und ihre Beziehungen zu anderen Gebieten. Tl 1. (Beiträge zur Geologie und Palaeontologie von Südamerika. Unter Mitwirkung von Fachgenossen hrsg. v. G. Steinmann, X). N. Jahrb. Min., Stuttgart, Beilagebd. 17, 1903, (252-812, mit 3 Taf.). [0231 1027 h 1031 2231]. 75

**Payebien, B. F.** Les oursins fossiles (suite et fin). Mâcon, Bul. soc. sci. nat., 2, 1903, (114-116). [1031]. 76

**Peach, B. N.** Appendix. Part I. Palaeontological, in W. Gunn and others. The geology of North Arran, South Bute, and the Cumbraes, with parts of Ayrshire and Kintyre, (153-170). Mem. geol. Surv. Scot., Edinburgh, Sheet 21. [1027 de]. 77

**Pearson, J.** Report on the Holothurioida collected by Professor Herdman, at Ceylon, in 1902. Rep. on Ceylon Pearl Oyster Fisheries, London, Roy. Soc., Pt. I, Supplementary Report, V, (181-208, pls. I-III). 4to. [1027 ef 1031]. 78

**Perrier, R[émy].** Sur deux espèces nouvelles d'Holothuries de la Nouvelle-Zélande. *Bul. Muséum, Paris*, 1903, (142-146, av. fig.). [1027 ik 1031]. 79

**Fetch, T.** The marine fauna of the Humber district and the Holderness coast. *Hull, Trans. Sci. F. Nat. Cl.*, 3, 1903, (27-41). [1027 de 2227 de 2627 de 0827 de 1827 de]. 80

Marine zoology at Filey. *Naturalist, London*, 1903, (351). [0627 de 0827 de 1827 de 1027 de 2027 de 2627 de 2227 de 5427 de]. 81

**Ridd, C.** The geology of the country around Salisbury. *Mem. geol. Surv. Eng., London*, 1903, (Explanation of sheet 298), (iv + 78, 38 text-figs.). [1027 de]. 82

The geology of the country near Chichester. With contributions by G. W. Lamplugh and A. J. Jukes-Browne. *Mem. geol. Surv. Eng., London*, 1903, (Explanation of sheet 317) (iv + 52, with 14 text-figs.). [1027 de 2227 de]. 83

**Rennie, J. v. Thomson, J. A.**

**Rowe, A. W.** The zones of the white chalk of the English coast. III. Devon. *London, Proc. Geol. Ass.*, 18, 1903, (1-51, pls. I-XIII). IV. Yorkshire. *Ib.*, (193-296, pls. XVII-XL). [Review] by H. B. Woodward, *Nature*, 1903, (428). [Revised by Jukes-Brown] *Geol. Mag., London*, [4], 10, 1903, (309-313). [0627 de 0827 de 1027 de 1031 2027 de]. 84

**Russo, A.** Studi sugli echinodermi. Catania, *Atti Acc. Gioenia*, (Ser. 4), 15, (79, 1902), 1902, (93, con tav. e fig.). [1007 1031]. 85

Sul significato delle idrospire e degli spiracoli dei Blastoidi. *Mon. Zool. ital., Firenze*, 13, 1902, (Supplemento), (22-24, con 2 fig.). [1007 1031]. 86

Gruppi di echinodermi viventi e fossili e loro filiazione. Conferenza (Sunto). *Mon. zool., ital., Firenze*, 13, 1902, (Supplemento), (54-58). [1031 0640]. 87

**Schuchert, Charles.** On new Siluric Cystoidea, and a new *Camarocrinus*. *Amer. Geol., Minneapolis, Minn.*, 32, 1903, (230-240). [1031]. 88

**Siedlecki, Michel. v. Caullery, Maurice.**

**Simpson, J.** Catalogue of echinoderms found at Aberdeen and neighbourhood. *Tr. Aberdeen Working Men's Nat. Hist. Soc.*, 1901-1902, No. 1, (39-43). [1019 1027 de 1031]. 89

**Sollas, W. J.** A method for the investigation of fossils by serial sections. *London, Phil. Trans. R. Soc.*, 1903, (259-265). [1003]. 90

**Stebbing, W. P. D.** Excursion to Salisbury and the Vale of Wardour. . . . Old Sarum and Stonehenge. *London, Proc. Geol. Ass.*, 18, 1903, (146-149). [1027 de 2227 de]. 91

**Teichmann, Ernst.** Ueber Furchung befruchteter Seeigeleier ohne Beteiligung des Spermakerns. *Diss. Würzburg. Jena (G. Fischer)*, 1902, (31, mit 4. Taf.). 23 cm. [1015]. 92

**Thompson, I. C. v. Herdman, W. A.**

**Thomson, J. A. and Rennie, J.** Outline of special course in natural history for Training College and King's students. Summer Session 1903. University of Aberdeen, 1903, (68). 8vo. [0030 0050 1003]. 93

**Todd, R. A.** Notes on the invertebrate fauna and fish-food of the bays between the Start and Exmouth. *Plymouth, J. Mar. Biol. Ass.*, 6, No. 4, 1903, (541-561). [5003 5027 de 2219 2227 de 2603 1827 de 1027 de 1019 0827 de 0819 0227 de 0060]. 94

**Tokunaga, S[higeyasu].** On the fossil echinoids of Japan. [Several living Echinoids dealt with]. (Japanese) *Tokyo, J. Coll. Sci.*, 17, Art. 12, 1903, (1-27, with 4 pls.). [1027 ec 1031]. 95

**Tower, R. W. v. Gorham, F[rederic] P[roole].**

**Ussher, W. A. E.** The geology of the country around Torquay. *Mem. geol. Surv. Eng., London*, 1903, (Explanation of sheet 350) (iv + 142, 17 text-figs.). [1027 de]. 96

**Vignier, C.** Action de l'acide carbonique sur les œufs d'Echinodermes. *Paris, C.-R. Acad. sci.*, 136, 1903, (1687-1690). [1015 0215 0211]. 97

**Wagner, Johannes.** Anatomie des *Palaeopneustes niasicus*. (Wissenschaftliche Ergebnisse der deutschen Tiefsee-Expedition. Bd 5, Lfg 1.) *Jena*, 1903, (1-60, mit 8 Taf.). 17 M. [1031 1007]. 98

Walker, J. F. v. Lamplugh, G. W.

Whitelegge, T. Echinoderms. Notes on the Zoology of Paanopa or Ocean Island and Nauru or Pleasant Island. Sydney, N.S.W., Rec. Austr. Mus., 5, 1903, (12-13). [1027 ib]. 99

Winslow, G. M. Note on the circular swimming of sand-dollar [*Echinarachnius parma*] spermatozoa. Science, New York, N.Y., (N. Ser.), 17, 1903, (153-154). [1015 1031]. 100

Woodcock, H. M. Report, in Report of the Committee on investigations made at the Marine Biological Laboratory, Plymouth. London, Rep. Brit. Ass. 1902, (271-272). [1019 0419 2219]. 101

Woodward, H. The President's address: Some ideas on life. London, J. R. Microsc. Soc., 23, 1903, (142-157). [0040 1027]. 102

Woodward, H. B. Excursion to Royston, Hertfordshire, May 16, 1903. [Ech. identified by E. T. Newton]. London, Proc. Geol. Ass., 18, 1903, (166-170). [1027 de 2227 de]. 103

Zelany, Charles. A study of the rate of regeneration of the arms in the brittle-star, *Ophioglypha lacertosa*. Wood's Holl, Mass., Mar. Biol. Lab. Bull., 6, 1903, (12-17, with diagr.). [0211 1011 1031]. 104

## 1003 COMPREHENSIVE AND GENERAL WORKS.

### GENERAL.

Syllabus of Royal Albert Memorial College, Exeter, for Session 1903-1904.

Sollas, W. J. A method for the investigation of fossils by serial sections. London, Phil. Trans. R. Soc., 196, B, 1903, (259-265).

Thomson, J. A. and Binnie, J. Outline of special course in natural history for Training College and King's students. Summer Session, 1903. University of Aberdeen, 1903, (68). 8vo.

### TREATISES.

Ludwig, H[ubert]. Echinodermen (Stachelhäuter). Fortges. v. Otto Hamann. (H. G. Bronn's Klassen u. Ordnungen des Thier-Reichs, Bd 2, Abt. 3, Lfg 41-48, 62-64.) Leipzig

(C. F. Winter), 1901-1903, (I-V, 953-1094, 1303-1366, mit Taf.). 26 cm. 12 + 4,50 M.

### AQUARIA.

Hardman, W. A. Port Erin Biological Station, Guide to the Aquarium, &c., Liverpool, 1902, (44, 22 text-fig.). 3d. [Reprint], Liverpool, Proc. Biol. Soc., 16, 1902, (65-108).

### BIOGRAPHY.

Horne, J. Obituary notice of the late Mr. Bennie. Edinburgh, Trans. Geol. Soc., 8, 1903, (187-193).

## 1007 STRUCTURE.

### GENERAL.

Grave, Caswell. Some points in the structure and development of *Mellita testudinata*. Baltimore, Md., Johns Hopkins Univ. Cir., 21, 1902, (57-59).

Russo, A. Studi sugli Echinodermi. Catania, Atti Acc. Gioenia, (ser. 4), 15, (79, 1902), 1902, (93, con. tav. e fig.).

— Sul significato delle idrospire e degli spiracoli dei Blastoidi. Mon. zool. ital., Firenze, 13, 1902, (Supplemento), (22-24, con. 2 fig.).

Wagner, Johannes. Anatomie des *Palaeopneustes niasicus*. (Wissenschaftliche Ergebnisse der deutschen Tiefsee-Expedition. Bd 5, Lfg. 1.) Jena, 1903, (1-60, mit 8 Taf.). 17 M.

### EXTERNAL CHARACTERS.

Östergren, Hja'mar. The Holothurioida of Northern Norway. Bergens Mus. Aarb., 1902, No. 9, 1903, (34).

## 1011 PHYSIOLOGY.

### GENERAL.

Caullery, Maurice et Siedlecki, Michel. Sur la résorption phagocytaire des produits génitaux inutilisés chez l'*Echinocardium cordatum*, Penn. Paris, C.-R. Acad. sci., 137, 1903, (496-498); [abstract], London, J. R. Microsc. Soc., 1903, (727-728).

**Henri, Victor.** Étude des contractions musculaires et des réflexes chez le *Stichopus regalis*. *l.c.* (669-670).

— et **Lalou, S.** Régulation osmotique des liquides internes chez les Echinodermes. *l.c.* (721-723); [abstract], London, J. R. Microsc. Soc., 1904, (66).

#### REGENERATION.

**Delage, Yves.** Sur la non-régénération des sphéridies chez les Oursins. Paris, C.-R. Acad. sci., 137, 1903, (681-682); [abstract], London, J. R. Microsc. Soc., 1904, (66).

**King, Helen Dean.** Further studies on regeneration in *Asterias vulgaris* [with bibliography]. [Reprinted from the Archiv für Entwicklungsmechanik der Organismen, 10, 1900.] Bryn Mawr, Pa., Bryn Mawr Coll. Monogr., (Repr. Ser.), 1, 1901, (723-737).

**Monks, Sarah.** Regeneration of the body of a starfish. [*Phataria (Linckia) fascialis*.] [Abstract.] Philadelphia, Pa., Proc. Acad. Nat. Sci., 55, 1903, (351); London, J. R. Microsc. Soc., 1903, (616).

**Seleny, Charles.** A study of the rate of regeneration of the arms in the brittle star *Ophioglypha lacertosa*. Wood's Holl, Mass., Mar. Biol. Lab. Bull., 6, 1903, (12-17, with diag.).

### 1015 DEVELOPMENT.

#### GENERAL.

**Bell, F. T.** [Exhibition of, and remarks upon, a Holothurian of the genus *Actinopyga*.] London, Proc. Zool. Soc., 1903, 1, (192).

**Grave, Caswell.** Some points in the structure and development of *Mellita testudinata*. Baltimore, Md., Johns Hopkins Univ. Cir., 21, 1902, (57-59).

**MacBride, E. W.** The development of *Echinus esculentus*, together with some points in the development of *E. miliaris* and *E. acutus*. London, Phil. Trans. R. Soc., 195, B, 1903, (285-327, pls. VII-XVI). London (Dulau), 1903. 8s. 6d.

— The development of the common sea-urchin (*Echinus esculentus*). London, Rep. Brit. Ass., 1902, (647).

**Mitsukuri, K[akichi].** Habits and life-history of *Stichopus japonicus*. Annot. Zool. Jap., Tokyo, 5, 1903, (1-21).

#### OVUM.

**Guenther, Konrad.** Ueber den Nucleolus im reifenden Echinodermenei und seine Bedeutung. Zool. Jahrb., Jena, Abt. f. Anat., 19, 1903, (1-28, mit 1 Taf.).

#### SPERMATOGENESIS AND SPERMATOZOA.

**Fischer, Martin H.** How long does (*Arbacia*) sperm live in sea-water? Amer. J. Physiol., Boston, Mass., 8, 1903, (430-434).

**Winslow, G. M.** Note on the circular swimming of sand-dollar [*Echinarachnius parma*] spermatozoa. Science, New York, N.Y., (N. Ser.), 17, 1903, (153-154).

#### PHENOMENA OF FERTILIZATION.

**Bovari, Marcella.** Ueber Mitosen bei einseitiger Chromosomenbindung. Jenaische Zs. Natw., 37, 1903, (401-446, mit 3 Taf.).

**Loeb, Jacques.** A method by which the eggs of a sea-urchin (*Strongylocentrotus purpuratus*) can be fertilized with the sperm of a starfish (*Asterias ochracea*). Berkeley, Univ. Cal., Pub. Physiol., 1, 1903, (1-3). Separate. 26.5 cm.

— The fertilization of the egg of the sea-urchin by the sperm of the star-fish. [Address before the Sigma Xi scientific society at Stanford University, October 13, 1903.] *l.c.* (39-53). Separate. 27.3 cm.

#### EMBRYOLOGY.

**Grave, Caswell.** On the occurrence among Echinoderms of larvae with cilia arranged in transverse rings, with a suggestion as to their significance. Wood's Holl, Mass., Mar. Biol. Lab. Bull., 5, 1903, (169-186, with text fig.).

## EXPERIMENTAL EMBRYOLOGY.

**Delage, Yves.** Elevage des larves parthénogénétiques d'Astéries dues à l'action de l'acide carbonique. Paris, C.-R. Acad. sci., **137**, 1903, (449-451).

La parthénogénèse par l'acide carbonique, obtenue chez les œufs après l'émission des globules polaires. *l.c.* (473-475); [abstract], London, J. R. Microsc. Soc., **1904**, (187).

**Doncaster, L.** Experiments in hybridization, with special reference to the effects of conditions on dominance. London, Phil. Trans. R. Soc., **196 B**, 1903, (119-173, with 10 text-figs.); [Prelim. Abstracts] London, Proc. R. Soc., **61**, 1903, (497); Nature, London, **68**, 1903, (94).

On rearing the later stages of echinoid larvae. Cambridge, Proc. Phil. Soc., **12**, 1903, (47-49). [Author's reprints, paged 48-50. Why?] [Prelim. Abstract], Nature, London, **67**, 1903, (215); [Abstract], London, J. R. Microsc. Soc., **1903**, (183).

**Fühner, Hermann.** Ueber die Einwirkung verschiedener Alkohole auf die Entwicklung der Seeigel. Arch. exper. Path., Leipzig, **51**, 1903, (1-10).

**Garbowski, Tad[eu]sz.** Contribution à l'étude de la parthénogénèse artificielle chez les astéries. (Polonais) Kraków, Rozpr. Akad., B, **43**, 1903, (570-610, av. 1 pl.).

Über parthenogenetische Entwicklung der Asteriden. Kraków, Bull. Intern. Acad., **1903**, (810-830, mit 1 pl.).

**Gorham, Frederic** P[ool]e and **Tower, R. W.** Does potassium cyanide prolong the life of the unfertilized egg of the sea urchin. Amer. J. Physiol., Boston, Mass., **8**, 1903, (175-182).

**Greeley, Arthur W.** On the effect of variations in the temperature upon the process of artificial parthenogenesis. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **4**, 1903, (129-136).

**Hunter, Samuel** J[ohn]. On the conditions governing the production of artificial parthenogenesis in *Arbacia*. *l.c.* **5**, 1903, (143-151).

**Janasens, F. A.** Production artificielle de larves géantes chez un Echinide.

Paris, C.-R. Acad. sci., **137**, 1903, (274-276).

**Teichmann, Ernst.** Ueber Furchung befruchteter Seeigelleier ohne Beteiligung des Spermakerns. Diss. Würzburg. Jena (G. Fischer), 1902, (31, mit 4 Taf.). 23 cm.

**Viguier, C.** Action de l'acide carbonique sur les œufs d'Echinodermes. Paris, C.-R. Acad. sci., **136**, 1903, (1687-1690).

## LARVAL FORMS.

**MacBride, E. W.** Report on a small collection of Echinoderm larvae made by Mr. George Murray, F.R.S., during the cruise of the "Oceana" in November 1898. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (477-478).

## POSTEMBRYONIC ONTOGENY.

**Grabau, Amadeus W[illiam].** Notes on the development of the biserial arm in certain crinoids. Amer. J. Sci., New Haven, Conn., (Ser. 4), **16**, 1903, (289-300); [abstract], London, J. R. Microsc. Soc., **1903**, (728).

**MacBride, E. W.** The development of *Echinus esculentus*, together with some points in the development of *E. miliaris* and *E. acutus*. London, Phil. Trans. R. Soc., **195 B**, 1903, (285-327, pls. VII-XVI). London (Dulau), 1903, 8s. 6d.

**Norman, A. M.** Notes on the natural history of East Finmark, Echinodermata. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (406-417, pl. XXVII).

## 1019 ETHOLOGY.

## GENERAL.

**Gardiner, J. S.** The breaking-up of coral rock by organisms in the Tropics. London, Rep. Brit. Ass., **1902**, (654-655). [Prelim. Abstract], Nature, London, **66**, 1902, (641).

**Mitsukuri, K[akichi].** . . . Habits and life-history of *Stichopus japonicus*. . . . Annot. Zool. Jap., Tokyo, **5**, 1903, (1-21).

## HABITS.

**Todd, R. A.** Notes on the invertebrate fauna and fish-food of the bays between the Start and Exmouth. Plymouth, J. Mar. Biol. Ass., **6**, 1903, (541-561).

## PARASITISM.

**Kochler, R. and Vaney, C.** *Entosiphon deimatis*, nouveau mollusque parasite d'une Holothurie abyssale. Rev. Suisse Zool., Genève, **11**, 1903, (23-41, 1 pl.).

**Leiper, R. T.** On an Acoelous Turbellarian inhabiting the common heart-urchin. London, Rep. Brit. Ass., **1902**, (652, 653).

**Woodcock, H. M.** Report, in Report of the Committee on investigations made at the Marine Biological Laboratory, Plymouth. *I.c.* (271, 272).

## HABITAT.

**Simpson, J.** Catalogue of echinoderms found at Aberdeen and neighbourhood. Tr. Aberdeen Working Men's Nat. Hist. Soc., **1901-1902**, No. 1, (39-43).

## 1023 VARIATION AND ÆTIOLOGY.

## GENERAL.

**McIntosh, D. C.** Variation in "*Ophiocoma nigra*" (O. F. Müller). Biometrika, Cambridge, **2**, 1903, (463-473, 10 text-figs.); [abstract]. London, J. R. Microsc. Soc., **1904**, (188).

## TERATOLOGICAL VARIATION.

**Bell, F. J.** [Exhibition of, and remarks upon a Holothurian of the genus *Actinopyga*.] London, Proc. Zool. Soc., **1903**, **1**, (192).

## CROSSES AND HYBRIDS.

**Doncaster, L.** Experiments in hybridization, with special reference to the effect of conditions on dominance. London, Phil. Trans. R. Soc., **190 B**, 1903, (119-173, with 10 text-figs.); [Prelim. Abstracts], London, Proc. R. Soc., **61**, 1903, (497); Nature, London, **68**, 1903, (94).

(N 2-9053)

**Loeb, Jacques.** A method by which the eggs of a sea-urchin (*Strongylocentrotus purpuratus*) can be fertilized with the sperm of a starfish (*Asterias ochracea*). Berkeley, Univ. Cal. Pub. Physiol., **1**, 1903, (1-3). Separate. 26.5 cm.

— The fertilization of the egg of the sea-urchin by the sperm of the star-fish. [Address before the Sigma Xi scientific society at Stanford university, October 13, 1903]. *I.c.* (39-53). Separate. 27.3 cm.

## EVOLUTION.

**Grave, Caswell.** On the occurrence among Echinoderms of larvæ with cilia, arranged in transverse rings, with a suggestion as to their significance. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **5**, 1903, (169-186, with text-fig.).

## 1027 GEOGRAPHICAL DISTRIBUTION.

## GENERAL.

**Woodward, H.** The President's Address: Some ideas on life. London, J. R. Microsc. Soc., **23**, 1903, (142-157).

## d EUROPE.

## da NORWAY.

**Østergren, Hjalmar.** The Holothurioidea of Northern Norway. Bergens Mus. Aarb., **1902**, No. 9, 1903, (34).

## db RUSSIA IN EUROPE

**Norman, A. M.** Notes on the natural history of East Finnmark, Echinodermata. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (406-417, pl. XXVII).

## de BRITISH ISLANDS.

**Blake, J. H.** The geology of the country around Reading. [The notes on the chalk are by A. J. Jukes-Browne]. Mem. Geol. Surv. Eng., London, **1903**, (Explanation of sheet 268), (92, with 13 text-figs.).

**Fearnside, W. G.** On some new fossils from Penmorfa and their bearing on the Cambro-Ordovician Succession near Tremadoc. London, Rep. Brit. Ass., **1902**, (614, 615).



**Fox-Strangways, C.** The geology of the country near Leicester. Mem. geol. Surv. Eng., London, 1903, (Explanations of sheet 156), (vi + 122, ii pls., 15 text-figs.).

**Gill, L.** Note on the occurrence of Kestley Limestone pebbles in the Red Sandstone Rocks of Peel (Isle of Man). London, Q. J. Geol. Soc., 59, 1903, (307-310).

**Herdman, W. A. and Thompson, I. C.** Echinodermata in: The marine fauna and fisheries of the district. In: Handbook Brit. Assoc. Southport, 1903, (167).

**Hey, W. C.** Shore-collecting near Scarborough and Filey. Naturalist, London, 1903, (344-348).

**Hind, W.** Life-zones in the British Carboniferous Rocks. Report of the Committee. London, Rep. Brit. Ass., 1902, (210-224).

**Jukes-Browne, A. J.** On the zones of the Upper Chalk in Suffolk. London, Proc. Geol. Ass., 18, 1903, (85-94, pl. XVI).

——— Devonshire in the time of the Lower Chalk. Plymouth, Rep. Devon Ass., 35, 1903, (787-799, 1 pl.).

**Lamplugh, G. W.** The Geology of the Isle of Man. Mem. Geol. Surv. U. K., London, 1903, (XIV + 620, V pls., 109 text-figs.).

——— and **Walker, J. F.** On a fossiliferous band at the top of the Lower Greensand near Leighton Buzzard (Bedfordshire). London, Q. J. Geol. Soc., 59, 1903, (234-265, pls. XVI-XVIII, 2 text-figs.).

**McHenry, A. et alii.** The geology of the country around Dublin. Mem. Geol. Surv. Ireland, Dublin, (Explanation of Sheet 112), (viii + 160, V pls., 21 text-figs.).

**Nichols, A. R.** A list of echinoderms. Being a report from the Fauna and Flora Committee. Dublin, Proc. R. Irish Acad., (Ser. 3), 24, Sect. B, 1903, (231-267, with 1 text-fig.); [abstract], London, J. R. Microsc. Soc., 1903, (728).

——— Echinodermata: in A Guide to Belfast, etc., by the Belfast Naturalists' Field Club. Belfast (McCaw & Co.), 1903, (231-233). 18: 5 + 12 cm.

**Peach, B. N.** Appendix. Part I. Palaeontological, in W. Gunn and others, The geology of North Arran, South Bute, and the Cumbraes, with parts of Ayrshire and Kintyre, (153-170). Mem. Geol. Surv. Scot., Edinburgh, Sheet 21.

**Petch, T.** The marine fauna of the Humber district and the Holderness coast. Hull, Trans. Sci. F. Nat. Cl., 3, 1903, (27-41).

——— Marine Zoology at Filey. Naturalist, London, 1903, (351).

**Reid, C.** The geology of the country round Salisbury. Mem. Geol. Surv. Eng., London, 1903, (Explanation of sheet 298), (iv + 78, 38 text-figs.).

——— The geology of the country near Chichester. With contributions by G. W. Lamplugh and A. J. Jukes-Browne. l.c. (Explanation of sheet 317), (iv + 52, with 14 text-figs.).

**Rowe, A. W.** The zones of the White Chalk of the English coast. III. Devon. The cliff-sections by C. Davies Sherborn. The White Chalk of the Devon Coast from Pinhay Cliff to Berry Cliff. London, Proc. Geol. Ass., 18, 1903, (1-51, pls. I-XIII); [review], by H. B. Woodward, Nature, London, 68, 1903, (425).

**Simpson, J.** Catalogue of echinoderms found at Aberdeen and neighbourhood. Tr. Aberdeen Working Men's Nat. Hist. Soc., 1901-1902, No. 1, (39-43).

**Stebbing, W. P. D.** Excursion to Salisbury and the Vale of Wardour . . . Old Sarum and Stonehenge. London, Proc. Geol. Ass., 18, 1903, (146-149).

**Todd, R. A.** Notes on the invertebrate fauna and fish-food of the bays between the Start and Exmouth. Plymouth, J. Mar. Biol. Ass., 6, 1903, (541-561).

**Ussher, W. A. E.** The geology of the country around Torquay. Mem. Geol. Surv., Eng., London, 1903, (Explanation of sheet 350) (iv + 142, 17 text-figs.).

**Woodward, H. B.** Excursion to Royston, Hertfordshire, May 16, 1903. [Ech. identified by E. T. Newton.] London, Proc. Geol. Ass., 18, 1903, (166-170).

## df FRANCE.

**Lissajous.** Echinides jurassiques des environs de Mâcon. Mâcon, Bul. Soc. sci. nat., 2, 1903, (97-111, 157-184, av. 2 pls.).

## dk AUSTRIA HUNGARY.

**Gordon, M. M. Ogilvie.** The geological structure of Monzoni and Fassa. Edinburgh, Trans. Geol. Soc., 8, 1903, (sp. part X + 180, with 18 pls., 2 maps and 33 text-figs.).

## e ASIA.

## er JAPANESE ISLANDS.

**Tokunaga, Shigeyasu.** On the fossil echinoids of Japan. [Several living echinoids dealt with]. Tokyo, J. Coll. Sci., 17, Art. 12, 1903, (1-27, with 4 pls.).

## ee SIAM.

**Mortensen, Th.** *Chaetodiadema granulatum* n. g., n. sp., a new Diadematiid from the Gulf of Siam. Kjöbenhavn, Nath. Medd., 1903, (1-7).

## ef BRITISH INDIA.

**Pearson, J.** Report on the Holothuriidea collected by Professor Herdman, at Ceylon, in 1902. Rep. Ceylon Pearl Oyster Fisheries, London, Roy. Soc., Pt. I, Supplementary Report, V, (181-205, pls. I-III). 4to.

## eg MALAY PENINSULA.

**Meijere, J. C. H. de.** [ . . . Echiniden der Siboga-Expedition]. Helder, Tijdschr. Ned. Dierk. Ver., 8, 1903, (1-16).

**Mortensen, Th.** *Lissodiadema*, nouveau genre de Diadematiidea. Rev. Suisse Zool., Genève, 11, 1903, (393-398, 4 figs.).

## f AFRICA.

## fb EGYPT.

**Oppenheim, Paul.** Ueber die Fossilien der Blättermergel von Theben. (n 2-9053)

München, SitzBer. Ak. Wiss., math.-physik. Cl., 32, (1902), 1903, (435-456, mit 1 Taf.).

## ff EAST AFRICA.

**Blanford, W. T.** The "Tanganyika Problem." Correspondence. London, Geog. J., 22, 1903, (92-96).

**Bell, F. J.** Report on a collection of Echinoderms from the neighbourhood of Zanzibar. Part I. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (244-248).

## g NORTH AMERICA.

## gg NORTH EASTERN UNITED STATES.

**Greene, George K.** Contribution to Indiana palaeontology. Parts XI-XV. New Albany, Indiana, 1903, (98-155, with pl.). 22.8 cm.

## h CENTRAL AND SOUTH AMERICA.

**Paulcke, W.** Ueber die Kreideformation in Südamerika und ihre Beziehungen zu anderen Gebieten. Tl. 1. (Beiträge zur Geologie und Palaeontologie von Südamerika. Unter Mitwirkung von Fachgenossen hrag. V. G. Steinmann, X). N. Jahrb. Min., Stuttgart, Beilagebd, 17, 1903, (252-312, mit 3 Taf.).

## hh BRAZIL.

**Katzer, Friedrich.** Grundzüge der Geologie des unteren Amazonasgebietes (des Staates Pará in Brasilien). Leipzig (M. Weg), 1903, (III+298, mit 4 Portr., 1 Karte). 26 cm. 14 M.

## i AUSTRALASIA.

## ia NEW GUINEA WITH ISLANDS FROM WALLACE'S LINE.

**Döderlein, Ludwig.** Bericht über die von Herrn Professor Semon bei Amboina und Thursday Island gesammelten Echinoidea. Jena, Denkschr. med. Ges., 8, 1903, (683-726, mit 8 Taf.).

**Meijere, J. C. H. de.** Echiniden der Siboga-Expedition, Helder, Tijdschr. Ned. Dierk. Ver., 8, 1903, (1-16).

## ib BISMARCK ARCHIPELAGO.

**Whitelegge**, T. [Echinoderms of Gilbert Group.] Sydney, N.S.W., Rec. Austr. Mus., 5, 1903, (12-13).

## ik NEW ZEALAND.

**Ferrier**, R[émy]. Sur deux espèces nouvelles d'Holothuries de la Nouvelle-Zélande. Bul. Muséum, Paris, 1903, (142-146, av. fig.).

## k ARCTIC.

## ka ARCTIC OCEAN.

**Grieg**, James A. Echinodermen . . . Bergens Mus. Aarb., 1903, No. 13, (45, 4 fig.). [1027 la 1031].

**Ostergren**, Hjalmar. The Holothurioides of Northern Norway. l.c. 1902, No. 9, 1903, (34).

## l ATLANTIC.

## la NORTH ATLANTIC OCEAN.

**Grieg**, James A. Echinodermen . . . Bergens Mus. Aarb., 1903, No. 13, (45, 4 fig.).

**MacBride**, E. W. Report on a small collection of Echinoderm larvae made by Mr. George Murray, F.R.S., during the cruise of the 'Oceana' in November 1898. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (477-478).

## m INDIAN OCEAN.

## ma OCEAN AND ISLANDS N. OF EQUATOR.

**Bell**, T. Actinogonidiata Echinoderms. Fauna of the Maldives and Laccadive Archipelagoes, 1, (223-233).

## o ANTARCTIC.

**Koehler**, R. Zoologie. Echinides et ophiures. In: Expédition antarctique belge. Résultats du voyage du S.Y. "Belgica" en 1897-99. Rapports scientifiques. Anvers (Imprimerie J. E. Buschmann), 1902, (42, av. 8 pls.). 17.50 fr.

## 1031 TAXONOMY.

## GENERAL.

**Bell**, F. J. Report on a collection of Echinoderms from the neighbourhood of Zanzibar. Part I. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (244-248).

——— Actinogonidiata Echinoderms. Fauna of the Maldives and Laccadive Archipelagoes, 1, (223-233).

**Greene**, G. K. Contribution to Indiana palaeontology. Parts XI, XV. New Albany, Ind., 1903, (98-155, with pl.). 22.8 cm.

**Nichols**, A. R. A list of Irish echinoderms. Being a report from the Fauna and Flora Committee. Dublin, Proc. R. Irish Acad., (Ser. 3), 24, Sect. B, 1903, (231-267, with 1 text-fig.); [abstract], London, J. R. Microsc. Soc., 1903, (728).

**Norman**, A. M. [Echinodermata from East Finnmark.] Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (406-417).

**Russo**, A. . . . Echinodermi: studii. Catania, Atti Acc. Gioenia, (Ser. 4), 15, (79, 1902), 1902, (93, con tav. e fig.).

——— Gruppi di Echinodermi viventi e fossili e loro filiazione. Conferenza. (Sunto). Mon. zool. ital., Firenze, 13, 1902, (Supplemento), (54-58).

**Simpson**, J. Catalogue of echinoderms found at Aberdeen and neighbourhood. Tr. Aberdeen Working Men's Nat. Hist. Soc., 1901-1902, No. 1, (39-43).

## CYSTOIDEA.

*Coelocystis*† n. gen., Genotype, *Hemicosmites subglobosus* Hall. **Schuchert**, C. Amer. Geol., Minneapolis, Minn., 32, 1903, (234).

*Jaekelocystis* n. gen. *J. hartleyi*† n. sp. Silurian. **Schuchert**, C. l.c. (231).

*Macrocystella mariae*. **Fearnside**, W. G. London, Rep. Brit. Ass., 1902, (614-615).

*Pseudocrinites*† nn. spp. Silurian. **Schuchert**, C. Amer. Geol., Minneapolis, Minn., 32, 1903, (235-238).

*Sphaerocystites globularis*† n. sp. Silurian. **Schuchert**, C. l.c. (233).

*Tiaracrinus tetraedra* † n. sp.  
**Jaekel**, [O.]. Berlin, Jahrb. geol.  
 Landesanst., 21, 1901, Abh. Mitarb., (77).

## CRINOIDEA.

## GENERAL.

**Grabau**, A. W. Notes on the develop-  
 ment of the biserial arm in certain  
 crinoids. Amer. J. Sci., New Haven,  
 Conn., (Ser. 4), 16, 1903, (289-300).

## SPECIAL.

*Camarocrinus ulrichi* † n. sp. Silurian.  
**Schuchert**, C. Amer. Geol., Minnea-  
 polis, Minn., 32, 1903, (239).

*Dolatocrinus* † nn. spp. et varr. **Rowley**  
 in **Greene**, G. K. Cont. Ind. pal., In-  
 diana, Ind., pt. 12, 1903, (112, 113, pl.  
 XXXV), pt. 13, (134, 136, 137, 1 pl.  
 XXXIX), pt. 14, (140, 141, 143, pls.  
 XLI, XLII), pt. 15, (147, 149-151, pl.  
 XLIV).

*Erisocrinus lóczyi* † n. sp. Brazil.  
**Katz**, F. Grundzüge der Geologie  
 des unteren Amazonasgebietes (des  
 Staates Pará in Brasilien). Leipzig,  
 1903, (159, 263).

*Gennaeocrinus* † nn. spp. **Rowley** in  
**Greene**, G. K. Contribution to Indiana  
 paleontology. Part XI. New Albany,  
 Ind., 1903, (99, 105-108).

*Megistocrinus oppelti* † n. sp. et nn.  
 varr. **Rowley** in **Greene**, G. K. Cont.  
 Ind. pal., New Albany, Ind., Part 11,  
 1903, (102, 103, pl. XXXII), pt. 13,  
 (135, pl. XXIX).

*Platycrinus devonicus* † n. sp. Devonian,  
 Indiana. **Rowley** in **Greene**, G. K. l.c.  
 pt. 12, 1903, (114, pl. XXXV).

*Stemmatocrinus? veryi* † n. sp. **Rowley**  
 in **Greene**, G. K. l.c. pt. 13, 1903, (133,  
 pl. XXXVIII).

*Stephanocrinus* † nn. spp. **Rowley** in  
**Greene**, G. K. l.c. Pt. 11, 1903, (103,  
 105).

## BLASTOIDEA.

## GENERAL.

**Hambach**, G. Revision of the Blas-  
 toidea, with a proposed new classifica-  
 tion, and description of new species. St.

Louis, Mo., Trans. Acad. Sci., 13, 1903,  
 (1-67, with pl.).

**Russo**, A. Sul significato delle idrospire  
 e degli spiracoli dei Blastoidi. Mon.  
 zool. ital., Firenze, 13, 1902, (Supple-  
 mento), (22-24, con 2 fig.).

## SPECIAL.

*Carpenteroblastus veryi* † n. sp. **Rowley**  
 in **Greene**, G. K. Cont. Ind. pal., In-  
 diana, Ind., pt. 13, 1903, (127, pl.  
 XXXVI).

*Cidaroblastus* n. gen., *C. parvus* † n.  
 sp. **Hambach**, G. St. Louis, Mo., Trans.  
 Acad. Sci., 13, 1903, (45, 58, pl. III, pl. v).

*Clavaeblastus* † n. gen. **Hambach**, G.  
 l.c. (44).

*Cribroblastus* n. gen., *C. incisus* †, *C.*  
*schucherti* †, *C. tenuis* †, *C. tenuistriatus* †,  
*C. verrucosus* † nn. spp. **Hambach**, G.  
 l.c. (39-63).

*Eleutheroblastus* n. nom. = *Eleuthero-*  
*crinus*. **Hambach**, G. l.c. (35, 50).

*Globoblastus* n. gen., *G. magnificus* †,  
*G. ornatus* †, *G. spathatus* †, nn. spp.  
**Hambach**, G. St. Louis, Mo., Trans.  
 Acad. Sci., 13, 1903, (61-62).

*Pentremites* † nn. spp. **Hambach**, G.  
 l.c. (1-67, 52-56, pl. IV, pl. V).

——— *speciosus* † n. sp. **Rowley**  
 in **Greene**, G. K. Cont. Ind. pal., In-  
 diana, Ind., pt. 12, 1903, (119, pl.  
 XXXVI).

*Saccoblastus* n. gen., *S. ventricosus* †  
 n. sp. **Hambach**, G. St. Louis, Mo.,  
 Trans. Acad. Sci., 13, 1903, (1-67).

## ASTEROIDEA.

## GENERAL.

**Delage**, Y. Elevage des larves par-  
 thénogénétiques d'Astéries dues à l'action  
 de l'acide carbonique. Paris, C.-R. Acad.  
 sci., 137, 1903, (449-451).

**Garbowaki**, T. Contribution à  
 l'étude de la parthénogénèse artificielle  
 chez les astéries. (Polonais) Kraków,  
 Rozpr. Akad., B, 43, 1903, (570-610, av.  
 1 pl.).

——— Über parthenogenetische  
 Entwicklung der Asteriden. Kraków,  
 Bull. Intern. Acad., 1903, (810-830, mit  
 1 Taf.).

## SPECIAL.

*Asterias*, parthenogenesis. **Greeley**, A. W. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **4**, 1903, (129-136).

——— *vulgaris*, further studies on regeneration. **King**, Helen Dean. Bryn Mawr, Pa., Bryn Mawr Coll. Monogr. (Repr. Ser.), **1**, 1901, ([723]-737).

*Phataria (Linckia) fascialis*, regeneration. **Monks**, S. P. Philadelphia, Pa., Proc. Acad. Nat. Sci., **55**, 1903, (351).

## OPHIUROIDEA.

## GENERAL.

**Grieg**, J. A. Ophiuroidea . . . Bergens Mus. Aarb., **1903**, No. 13, (45, 4 figs.).

**Koehler**, R. Zoologie, Echinides et ophiures. In: Expédition antarctique belge. Résultats du voyage du S. Y. "Belgica" en 1897-99. Rapports scientifiques. Anvers (Imprimerie J. E. Buschmann), 1902, (42, av. viii pls.). fr. 17, 50.

## SPECIAL.

*Ophiocoma nigra* (O. F. Müller), variation. **McIntosh**, D. C. Biometrika, Cambridge, **2**, 1903, (463-473, 10 text-figs.).

*Ophioglypha lacertosa*, regeneration. **Zeleny**, C. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **6**, 1903, (12-17, with diagr.).

## ECHINOIDEA.

## GENERAL.

**Delage**, Y. Sur la non-régénération des sphéridies chez les oursins. Paris, C.-R. Acad. sci., **137**, 1903, (681-682); [abstract], London, J. R. Microsc. Soc., **1904**, (66).

**Döderlein**, [Ludwig]. Bericht über die von Herrn Professor Semon bei Amboina und Thursday Island gesammelten Echinoidea. Jena, Denkschr. med. Ges., **8**, 1903, (683-726, mit 8 Taf.).

**Denncaster**, L. On rearing the later stages of echinoid larvae. Cambridge,

Proc. Phil. Soc., **12**, 1903, (47-49). [Author's reprints paged 48-50, Why?] [Prelim. Abstract], Nature, London, **67**, 1903, (215); [abstract], London, J. R. Microsc. Soc., **1903**, (183).

**Fritel**, P. H. Echinodermes fossiles. Les oursins. Naturaliste. Paris, (sér. 2), **24**, 1902, (185-188, av. fig.).

**Fühner**, Hermann. Ueber die Einwirkung verschiedener Alkohole auf die Entwicklung der Seeigel. Arch. exper. Path., Leipzig, **51**, 1903, (1-10).

**Gorham**, F. P. and **Tower**, R. W. Does potassium cyanide prolong the life of the unfertilized egg of the sea-urchin? Amer. J. Physiol., Boston, Mass., **8**, 1903, (175-182).

**Janassens**, F. A. Production artificielle de larves géantes chez un Echinide. Paris, C.-R. Acad. sci., **137**, 1903, (274-276).

**Koehler**, R. Zoologie. Echinides et ophiures. In: Expédition antarctique belge. Résultats du voyage du S.Y. "Belgica" en 1897-99. Rapports scientifiques. Anvers (Imprimerie J. E. Buschmann), 1902, (42, av. 8 pls.). 17.50 fr.

**Lissajous**. Echinides jurassiques des environs de Mâcon. Mâcon, Bul. soc. sci. nat., **2**, 1903, (97-111, 157-184, av. 2 pls.).

**Rowe**, A. W. The zones of the white chalk of the English coast. III. Devon. London, Proc. Geol. Ass., **18**, 1903, (1-51, pls. I-XIII); IV. Yorkshire, *ib.*, (193-296, pls. XVII-XL). [Review]: by H. B. Woodward, Nature, 1903, (428); [also Jukes Brown], Geol. Mag., London, [4], **10**, 1903, (309-313).

**Meljere**, J. C. H. de. . . Echiniden der Siboga-Expedition. Helder, Tijdschr. Ned. Dierk. Ver., **8**, 1903, (1-16).

**Payebien**, B. F. Les oursins fossiles (suite et fin). Mâcon, Bul. soc. sci. nat., **2**, 1903, (114-116).

**Tokunaga**, S. Echinoids of Japan. [Fossil and recent]. Tokyo, J. Coll. Sci., **17**, Art. 12, 1903, (1-27, with 4 pls.).

## SPECIAL.

*Aphanopora* n. gen., *A. echinobrisoides* n. sp. **Meljere**, J. C. H. de. Helder, Tijdschr. Ned. Dierk. Ver., **8**, 1903, (8).

*Arbacia*, parthenogenesis. **Greeley**, A. W. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **4**, 1903, (129-136).

————— **Hunter**, S. J. l.c. **5**, 1903, (143-151).

*Astropyga denudata* n. sp. **Meijere**, J. C. H. de. Helder, Tijdschr. Ned. Dierk. Ver., **8**, 1903, (4).

*Chaetodiadema* n. gen., *C. granulatum* n. sp. Gulf of Siam. **Mortensen**, T. Kjöbenhavn, Nath. Medd., **1903**, (1-4).

*Clypeaster rarispinus* n. sp. **Meijere**, J. C. H. de. Helder, Tijdschr. Ned. Dierk. Ver., **8**, 1903, (7).

*Cyphosoma mollenae*† n. sp. Kreide, Südamerika. **Berlese**, A. in Paulcke, N. Jahrb. Min., Stuttgart, Beilagebd, **17**, 1903, (286, pl. XVII).

*Dermatodiadema amphigymnum* n. sp. **Meijere**, J. C. H. de. Helder, Tijdschr. Ned. Dierk. Ver., **8**, 1903, (2).

*Echinarachnius parma*, spermatozoon. **Winalow**, G. M. Science, New York, N.Y., (N. Ser.), **17**, 1903, (153-154).

*Echinocardium cordatum* Penn., résorption phagocytaire des produits génitaux inutilisés. **Caulery**, M. et **Siedlecki**, M. Paris, C.-R. Acad. sci., **137**, 1903, (496-498).

————— infested by *Proporidae*. **Leiper**, R. T. London, Rep. Brit. Ass., **1902**, (652-653).

*Echinocorys* de Tercis (Landes). **Arnaud**, H. Bordeaux, Actes. soc. linn., (sér. 6), **7**, 1902, (29-39, av. 9 pl.).

*Echinoecyamus* nn. spp. **Meijere**, J. C. H. de. Helder, Tijdschr. Ned. Dierk. Ver., **8**, 1903, (5, 6).

*Echinus armatus* n. sp. **Meijere**, J. C. H. de. l.c. (5).

————— *esculentus*, development. **MacBride**, E. W. London, Rep. Brit. Ass., **1902**, (647).

————— *E. miliaris* and *H. acutus*, development. **MacBride**, E. W. London, Phil. Trans. R. Soc., **195 B**, 1903, (285-327, pls. VII-XVI). London, (Dulan), 1903 8s. 6d.

*Fibularia cribellum* n. sp. **Meijere**, J. C. H. de. Helder, Tijdschr. Ned. Dierk. Ver., **8**, 1903, (7).

*Hemiaster cubicus*† Desor, et ses variations. **Fourteau**, R. Bul. Muséum, Paris, **1903**, (177-180).

*Hemipedinia indica* n. sp. **Meijere**, J. C. H. de. Helder, Tijdschr. Ned. Dierk. Ver., **8**, 1903, (3).

*Homolampas rostrata* n. sp. **Meijere**, J. C. H. de. l.c. (14).

*Linopneustes excentricus* n. sp. **Meijere**, J. C. H. de. l.c. (13).

*Lissodiadema* n. gen., *L. lorioli* n. sp. **Mortensen**, Th. Rev. Suisse, Zool., Genève, **11**, 1903, (393-389, 4 figg.).

*Mellita testudinata*, structure, development. **Grave**, C. Baltimore, Md., Johns Hopkins Univ. Cir., **21**, 1902, (57-59).

*Micropyga violacea* n. sp. **Meijere**, J. C. H. de. Helder, Tijdschr. Ned. Dierk. Ver., **8**, 1903, (3).

*Neolampas tenera* n. sp. **Meijere**, J. C. H. de. l.c. (8).

*Palaeopneustes* nn. spp. **Meijere**, J. C. H. de. l.c. (11, 12).

————— *niasicus*, Anatomie. **Wagner**, J. (Wissenschaftliche Ergebnisse der deutschen Tiefsee-Expedition. Bd 5, Lfg 1.) Jena, 1903, (1-60, mit 8 Taf.) 17 M.

*Phormosoma alternans* n. sp. **Meijere**, J. C. H. de. Helder, Tijdschr. Ned. Dierk. Ver., **8**, 1903, (2).

*Phriosoecystia humilis* n. sp. **Meijere**, J. C. H. de. l.c. (14).

*Plesiozonus* n. gen., *P. hirsutus* n. sp. **Meijere**, J. C. H. de. l.c. (12).

*Porocidaris maculicollis* n. sp. **Meijere**, J. C. H. de. l.c. (1).

————— *prior*† n. sp. Blättermergel von Theben. **Oppenheim**, P. München, SitzBer. Ak. Wiss., math.-phys. Cl., **32**, (1902), 1903, (451, pl. VII).

*Rhabdocidaris lafayi*† n. sp. **Lissajous**, Mâcon, Bul. soc. sci. nat., **2**, 1903, (106, pl. I).

*Stereopneustes* n. gen., *S. relictus* n. sp. **Meijere**, J. C. H. de. Helder, Tijdschr. Ned. Dierk. Ver., **8**, 1903, (9).

*Sternopatagus* n. gen., *S. sibogae* n. sp. **Meijere**, J. C. H. de. l.c. (10).

## HOLOTHURIOIDEA.

## GENERAL.

**Koehler, R. und A. Vaney.** *Entosiphon deimatis*, nouveau mollusque parasite d'une Holothurie abyssale. Rev. Suisse Zool., Genève, 11, 1903, (23-41, 1 pl.).

**Ostergren, Hjalmar.** The Holothurioida of Northern Norway. Bergens Mus. Aarb., 1902, No. 9, [1903], (34).

**Pearson, J.** Report on the Holothurioida collected by Professor Herdman, at Ceylon, in 1902. Rep. on Ceylon Pearl Oyster Fisheries, London, Roy. Soc., Pt. 1, Supplementary Report, V, (181-208, pls. I-III).

## SPECIAL.

*Actinocucumis donnani* n. sp. **Pearson, J.** Rep. on Ceylon Pearl Oyster Fisheries, Pt. 1, Supplementary Report, (195).

*Actinopyga*, exhibition and remarks on a specimen from the shallow water off Zanzibar. **Bell, F. J.** London, Proc. Zool. Soc., 1903, 1, (192).

———— *serratidens* n. sp. **Pearson, J.** Rep. on Ceylon Pearl Oyster Fisheries, Pt. 1, Supplementary Report, V, (199).

*Colochirus quadrangularis* var. *mollis* n. var. **Pearson, J.** l.c. V, (196).

*Cucumaria filholi* n. sp. **Nouvelle-Zélande. Perrier, R.** Bul. Muséum, Paris, 1903, (144).

*Havelockia* n. gen., *H. herdmani* n. sp. **Pearson, J.** Rep. on the Ceylon Pearl Oyster Fisheries, Pt. 1, Supplementary Report, V, (197-198).

*Holothuria gallensis* n. sp. **Pearson, J.** l.c. (203).

*Solenopsis*, note on the name. **Cockerell, T. D. A.** Nature, London, 67, 1903, (559).

*Stichopus chloronotus* var. *fuscus* n. var. **Pearson, J.** Rep. on Ceylon Pearl Oyster Fisheries, Pt. 1, Supplementary Report, V, (204).

———— *japonicus*, habits and life-history. **Mitsukuri, K.** Annot. Zool. Jap., Tokyo, 5, 1903, (1-21).

———— *regalis*, contractions musculaires, réflexes. **Henri, V.** Paris, C.-R. Acad. sci., 137, 1903, (669-670).

*Thyone* nn. spp. **Pearson, J.** Rep. on Ceylon Pearl Oyster Fisheries, Pt. 1, Supplementary Report, V, (192-194).

*Thyonidium anatinum* n. sp. **Nouvelle-Zélande. Perrier, R.** Bul. Muséum, Paris, 1903, (143).

## LIST OF NEW GENERA AND SPECIES.

*ACTINOCUCUMIS* [Holothurioida].

———— *donnani*. **Pearson.** 78.

*ACTINOPYGA* [Holothurioida].

———— *serratidens*. **Pearson.** 78.

*APHANOPORA* n. gen. [Echinoidea].

———— *Meijere*, de. 65.

———— *echinobrissoides*. **Meijerc**, de. 65.

*ASTROPYGA* [Echinoidea].

———— *denudata*. **Meijere**, de. 65.

*CAMAROCRINUS* [Crinoidea].

———— *ulrichi*†. **Schuchert.** 88.

*CARPENTEROBLASTUS* [Blastoidea].

———— *terryi*†. **Rowley.** 33.

*CHAETODIADEMA* n. gen. [Echinoidea].

———— *Mortensen.* 68.

———— *granulatum*. **Mortensen.** 68.

*CIDAROBLASTUS* n. gen. [Blastoidea].

———— *Hambach.* 36.

———— *parvus*†. **Hambach.** 36.

*CLAVAEBLASTUS* n. gen. [Blastoidea].

———— *Hambach.* 36.

*CLYPEASTER* [Echinoidea].

———— *rarispinus*. **Meijere**, de. 65.

*COELOCYSTIS*† n. gen. [Cystoidea].

———— *Schuchert.* 88.

*COLOCHIRUS* [Holothurioida].

———— *quadrangularis* var. *mollis* n. var. **Pearson.** 78.

*CRIBROBLASTUS* n. gen. [Blastoidea].

———— *Hambach.* 36.

———— *incisus*†. **Hambach.** 36.

———— *schucherti*†. **Hambach.** 36.

———— *tenuis*†. **Hambach.** 36.

———— *tenuistriatus*†. **Hambach.** 36.

———— *verrucosus*†. **Hambach.** 36.

*CUCUMARIA* [Holothurioida].

———— *filholi*. **Perrier.** 79.

*CYPHOSOMA* [Echinoidea].

———— *mollense*†. **Berlese.** 75.

**DERMATODIADEMA** [Echinoidea].

\_\_\_\_\_ *amphigymnum*. Meijere, de. 65.

**DOLATOCRINUS** [Crinoidea].

\_\_\_\_\_ *arrosus* var. *cognatus*† n. var. Rowley. 33.

\_\_\_\_\_ *corbuliformis*†. Rowley. 33.

\_\_\_\_\_ *corporosus*, var. *concinus*† n. var. Rowley. 33.

\_\_\_\_\_ \_\_\_\_\_ var. *decoratus*† n. var. Rowley. 33.

\_\_\_\_\_ *currieri*†. Rowley. 33.

\_\_\_\_\_ *elegantulus*†. Rowley. 33.

\_\_\_\_\_ *exceavatus* var. *incarinatus*† n. var. Rowley. 33.

\_\_\_\_\_ *fungiferus*†. Rowley. 33.

\_\_\_\_\_ *multibrachiatus*†. Rowley. 33.

\_\_\_\_\_ *multinodosus*†. Rowley. 33.

\_\_\_\_\_ *noduliferus*†. Rowley. 33.

\_\_\_\_\_ *pernodosus*†. Rowley. 33.

\_\_\_\_\_ *uelleri*†. Rowley. 33.

**ECHINOCTAMUS** [Echinoidea].

\_\_\_\_\_ *proectus*. Meijere, de. 65.

\_\_\_\_\_ *scaber*. Meijere, de. 65.

**ECHINUS** [Echinoidea].

\_\_\_\_\_ *armatus*. Meijere, de. 65.

**ELENTEROBLASTUS**† n. nom. [Blastoidea].

\_\_\_\_\_ Hambach. 36.

**ERISOCRINUS** [Crinoidea].

\_\_\_\_\_ *loczyi*†. Katzer. 49.

**FIBULARIA** [Echinoidea].

\_\_\_\_\_ *cribellum*. Meijere, de. 65.

**GENNAEOCRINUS** [Crinoidea].

\_\_\_\_\_ *comptus*†. Rowley. 33.

\_\_\_\_\_ \_\_\_\_\_ var. *spiniferus* n. var.† Rowley. 33.

\_\_\_\_\_ *facetus*†. Rowley. 33.

\_\_\_\_\_ *sculptus*†. Rowley. 33.

**GLOBOBLASTUS** n. gen. [Blastoidea]. Hambach. 36.

\_\_\_\_\_ *magnificus*†. Hambach. 36.

\_\_\_\_\_ *ornatus*†. Hambach. 36.

\_\_\_\_\_ *spathatus*†. Hambach. 36.

**HAVELOCKIA** n. gen. [Holothurioida]. Pearson. 78.

\_\_\_\_\_ *herdmani*. Pearson. 78.

**HEMIPEDINA** [Echinoidea].

\_\_\_\_\_ *indica*. Meijere, de. 65.

**HOLOTHURIA** [Holothurioida].

\_\_\_\_\_ *gallensis*. Pearson. 78.

**HOMOLAMPAS** [Echinoidea].

\_\_\_\_\_ *rostrata*. Meijere, de. 65.

**JAELOCYSTIS** n. gen. [Cystoidea].

\_\_\_\_\_ Schuchert. 88.

\_\_\_\_\_ *hartleyi*†. Schuchert. 88.

**LINOPNEUSTES** [Echinoidea].

\_\_\_\_\_ *excentricus*. Meijere, de. 65.

**LISSODIADEMA** n. gen. [Echinoidea].

\_\_\_\_\_ Mortensen. 69.

\_\_\_\_\_ *lorioli*. Mortensen. 69.

**MEGISTOCRINUS** [Crinoidea].

\_\_\_\_\_ *expansus* var. *magniventrus* n. var.† Rowley. 33.

\_\_\_\_\_ *oppelti*†. Rowley. 33.

\_\_\_\_\_ *rugosus* var. *spinuliferus*† n. var. Rowley. 33.

**MICROPYGA** [Echinoidea].

\_\_\_\_\_ *violacea*. Meijere, de. 65.

**NEOLAMPAS** [Echinoidea].

\_\_\_\_\_ *tenera*. Meijere, de. 65.

**PALAEOPNEUSTES** [Echinoidea].

\_\_\_\_\_ *fragilis*. Meijere, de. 65.

\_\_\_\_\_ *spectabilis*. Meijere, de. 65.

**PENTREMITES** [Blastoidea].

\_\_\_\_\_ *angustus*†. Hambach. 36.

\_\_\_\_\_ *kirki*†. Hambach. 36.

\_\_\_\_\_ *obtusius*†. Hambach. 36.

\_\_\_\_\_ *rusticus*†. Hambach. 36.

\_\_\_\_\_ *serratus*†. Hambach. 36.

\_\_\_\_\_ *speciosus*†. Rowley. 33.

\_\_\_\_\_ *tulipaformis*†. Hambach. 36.

\_\_\_\_\_ *turbinatus*†. Hambach. 36.

**PHORMOSOMA** [Echinoidea].

\_\_\_\_\_ *alternans*. Meijere, de. 65.

**PHRISOCYSTIS** [Echinoidea].

\_\_\_\_\_ *humilis*. Meijere, de. 65.

**PLATYCRINUS** [Crinoidea].

\_\_\_\_\_ *devonicus*†. Rowley. 33.

**PLEIOZONUS** n. gen. [Echinoidea].

\_\_\_\_\_ Meijere, de. 65.

\_\_\_\_\_ *hirsutus*. Meijere, de. 65.

**POROCIDARIS** [Echinoidea].

\_\_\_\_\_ *maculicollis*. Meijere, de. 65.

\_\_\_\_\_ *prior*†. Oppenheim. 73.

**PSEUDOCRINITES** [Cystoidea].

\_\_\_\_\_ *clarki*†. Schuchert. 88.

\_\_\_\_\_ *gordoni*†. Schuchert. 88.

\_\_\_\_\_ *perdetti*†. Schuchert. 88.

\_\_\_\_\_ *stellatus*†. Schuchert. 88.

**RHABDOCIDARIS** [Echinoidea].

\_\_\_\_\_ *lafuyi*†. Lissajous. 56.

**SACCOBLASTUS** n. gen. [Blastoidea]. Hambach. 36.

\_\_\_\_\_ *ventricosus*†. Hambach. 36.

**SPHAEROCYSTITES** [Cystoidea].

\_\_\_\_\_ *globularis*†. Schuchert. 88.



- STEMMATOCRINUS [Crinoidea].  
 ——— (?) *veryi*†. Rowley. 33.
- STEPHANOCRINUS [Crinoidea].  
 ——— *deformis*†. Rowley. 33.  
 ——— *quinquepartitus*†. Rowley. 33.
- Stereopneustes** n. gen. [Echinoidea].  
 ——— Meijere, de. 65.  
 ——— *relictus*. Meijere, de. 65.
- Sternopatagus** n. gen. [Echinoidea].  
 ——— Meijere, de. 65.  
 ——— *sibogae*. Meijere, de. 65.

- STICHOPUS [Holothurioides].  
 ——— *chloranotus* var. *fuscus* n. var.  
 Pearson. 78.
- THYONE [Holothurioides].  
 ——— *calcareo*. Pearson. 78.  
 ——— *fusca*. Pearson. 78.  
 ——— *hornelli*. Pearson. 78.
- THYONIDIUM [Holothurioides].  
 ——— *anatinum*. Perrier. 79.
- TIARACRINUS [Cystoidea].  
 ——— *tetraedra*†. Jaekel. 45.

# 1203-1231 PLATYHELMINTHES, MESOZOA AND TRICHOPLAX.

## TITLES.

**Altmann, C. A.** Hydatid cyst of the heart: rupture into the left auricle. *Lancet*, London, **184**, 1903, (677). [1203]. 1

**Anscheles-Wolownik, Baschewa.** Über den multiocularen Echinokokkus mit spezieller Berücksichtigung seines Vorkommens in der Schweiz. Zürich Med. Diss. 1903-1904. Darmstadt, 1903, (16 + 1 Taf.). 8vo. [1227 di 1231]. 2

**Ariola, V.** Contributo per una monographia dei *Didymozoon*.—1. *Didymozoon parassiti* del tonno. *Arch. parasit.*, Paris, **6**, 1902, (90-108, av. fig.). [1213]. 3

**Asam, W[ilhelm].** *Taenia cucumerina* bei einem Kinde. Münchener med. Wochenschr., **50**, 1903, (334-335). [1231]. 4

**Bergendal, D[avid].** Bemerkungen über einige Angaben, den Bau des Kopfes einiger Heteronemertinen betreffend. *Zool. Anz.*, Leipzig, **26**, 1903, (254-257); Berichtigung, *ib.*, (438). [1207 1231]. 5

Ueber „Sinnesgrübchen“ im Epithel des Vorderkopfes bei *Carinoma armandi* sp. McInt. (Oudemans) nebst einigen systematischen Bemerkungen über die Arten dieser Gattung. *Zool. Anz.*, Leipzig, **26**, 1903, (608-619). [1207 1231]. 7

**Black, R. S.** A case of *Cysticercus cellulosae* causing insanity. *J. Mental Sci.*, London, **49**, 1903, (110-115). [1203 1231]. 8

**Blair, W. Reid.** Cysticerci in wild ruminants New York, N.Y., Rep. Zool. Soc., **1902**, 1903, (137-144). [1219 1231]. 9

**Bohn, Georges.** Sur les mouvements oscillatoires de *Convoluta roscoffensis*. Paris, C.-R. Acad. sci., **137**, 1903, (573-578). [1219 1231]. 10

**Bossuat, Émile.** Les Helminthes dans le foie. [*Floriceps saccatus* dans le foie de l'*Orthogoriscus mola*]. *Arch. parasit.*, Paris, **6**, 1902, (161-206, av. 13 figs.). [1231 5419]. 11

**Bresslau, E.** Die Sommer- und Winterer der Rhabdocölen des süßen Wassers und ihre biologische Bedeutung. *Verh. D. zool.*, Leipzig, **13**, 1903, (126-139). [1215 1231]. 12

**Bürger, Otto.** Die Nemertinen. (*Fauna Arctica*, **3**). Jena, 1903, (55-64, mit 1 Taf.). [1227 k 1231]. 13

— Nemertini (Schnurwürmer). (*H. G. Bronn's Klassen u. Ordnungen des Thier-Reichs*, Bd 4, Suppl., Lfg 18-22.) Leipzig (C. F. Winter), 1903, (289-384, mit Taf.). 26 cm. 7,50 M. [1203 1231]. 14

**Child, C. M.** Form-regulation in Coelentera and Turbellaria. Washington, D.C., Smithsonian Inst., Misc. Collect. Q. Issue, **45**, 1903, (134-143, with pl.). Separate 24.5 cm. [0211 0811 1211 1231]. 15

— Studies on regulation. I. Fission and regulation in *Stenostoma*. II. Experimental control of form-regulation in zooids and pieces of *Stenostoma*. *Arch. EntwMech.*, Leipzig, **15**, 1902-1903, (187-237, 355-420, 603-637, mit 5 Taf.). [1211 1231]. 16

- Cholodkovsky, N.** r. Kholodkovsky, N. **Fuhrmann, O.** L'évolution des ténias et en particulier de la larve des ichtyoténias. Arch. Sci. Phys., Genève, (sér. 4), **16**, 1903, (335-337). [1223 1231 5419]. 29
- Clapp, Geo. H.** *Bipalium keuense* Mos. [Geographical distribution]. Pittsburgh, Pa., Ann. Carnegie Mus., **1**, 1901, (253-254). [1231]. 17
- Clerc, W.** Contribution à l'étude de la faune helminthologique de l'Oural. Rev. Suisse Zool., Genève, **11**, 1903, (241-368, av. 4 pls. et 6 figs.). [1227 db 1219 1231 5819]. 18
- Coe, W. R. and Kunkel, B. W.** A new species of Nemertean (*Cerebratulus melanocephalus*) from the Gulf of St. Lawrence. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **4**, 1903, (119-124). [1207 1231]. 19
- Cohn, Ludwig.** Helminthologische Mittheilungen. Arch. Natg., Berlin, **69**, Bd 1, 1903, (47-68, mit 1 Taf.). [1231]. 20
- Zur Kenntnis einiger Trematoden. Centralbl. Bakt., Jena, Abt. 1, **34**, Originale, 1903, (35-42). [1210 1231]. 21
- Curtis, W. C.** *Crossobothrium laciniatum* and developmental stimuli in the Cestoda. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **5**, 1903, (125-142, with text fig.). [0215 1207 1215 1231]. 22
- Dévé, F.** Inoculations échinococciques au cobaye. Paris, C.-R. soc. biol., **55**, 1903, (122-123). [1219 1231]. 23
- Sur l'évolution kystique du scolex échinococcique. Arch. parasit., Paris, **6**, 1902, (54-81, av. 11 figs.). [1215 1231]. 24
- Douglas, J. J.** r. Lazarus-Barlow, W. S. **Drago, U.** Sull' attacco e sul parasitismo del *Distomum contortum*. Catania, Atti Acc. Gioenia, (Ser. 4), **15**, (79, 1902), 1902, (4, con fig.). [1219 1231]. 25
- Sull' attacco e sul parasitismo del *Distomum contortum*. (Sunto). Catania, Boll. Acc. Gioenia, (N. Ser.), **1902**, fasc. 74, (20). [1219 1231]. 26
- Fedorov, Nathalie.** L'anémie bothriocéphalique. Arch. parasit., Paris, **6**, 1902, (207-244). [1203]. 27
- Fischöder, F.** Die Paramphistomiden der Säugethiere. Zool. Jahrb., Jena, Abt. f. Syst., **17**, 1903, (485-660, mit 12 Taf.). [1231 6003]. 28
- Galli-Valerio, Bruno.** Notes de parasitologie. Centralbl. Bakt., Jena, Abt. 1, **35**, Originale, 1903, (81-91). [0219 0419 0431 1219 1231 1419 1431 4219]. 30
- Gamble, W. and Keeble, F.** The bionomics of *Convoluta roseocephalis* with special reference to its green cells. Q. J. Microsc. Sci., London, **47**, 1903, (363-431, pls. XXX, XXXI). [0219 1219 1231]. 31
- Garbowaki, Tad[däus].** Morphogenetische Studien. Als Beitrag zur Methodologie zoologischer Forschung. Jena (G. Fischer), 1903, (VIII + 189, mit 6 Taf.). 36 cm. 28 M. [0215 1231]. 32
- Garlaev, V. P.** Bericht über eine Reise zur Untersuchung der Evertbratenfauna des Baikalsees im Sommer 1900 u. 1901. (Russ.) St. Petersburg, Trd. Troick.—Klacht. Otd. Russ. Geogr. Obsč., **V**, 2, 1902, [1903], (27-48, mit 1 Karte). [0627 1227 1827 2027 2227 2627 ea 0631 1231 1831 2031 2231 2631]. 33
- Guérin, Jules.** Parasitologie pratique : I. Le ver solitaire. Bul. sci. pharm., Paris, **5**, [t. 3, Pt. profess.], 1901, (17-22, 113-117, 223-227, av. 6 pl. et fig.); Les parasites de l'intestin et leur recherche dans les matières fécales, ib., **6**, 1902, (152-157, 199-208, av. fig.). [0419 1219 1231 4219]. 34
- Hartmann, Max.** Die Fortpflanzungsweisen der Organismen, erläutert an Protozoen, Volvocineen und Dicyemiden (Zugleich Mitteilung über den Generationswechsel der Dicyemiden). Hab.-Schr. Giessen. Leipzig (G. Thieme), 1903, (43). 23 cm. [1231 1215 0415]. 35
- Haswell, W. A.** On two remarkable sporocysts occurring in *Mytilus latus* on the coast of New Zealand. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, **27**, (1902), 1903, (497-515, with 2 pls.). [1215 1231]. 36
- Herdman, W. A.** The new biological station at Port Erin, being the 16th annual report of the Liverpool Marine

Biology Committee. Liverpool, Trans. Biol. Soc., **17**, 1903, (15-67). [0827 de 5427 de 2227 de 2627 de 1227 de 1803]. 37

**Höfer**, Bruno. Ein Fall von per-niziöser Anämie durch *Octobothrium sagittatum* bei der Regenbogenforelle. Allg. Fischereiztg., München, **28**, 1903, (38-39). [5419 1231 1219]. 38

**Jameson**, H. L. On the origin of pearls. [Due to a *Distomum cercaria* = *D. somateriae*.] Nature, London, **67**, 1903, (280-282, 3 figs.). [1219 1231]. 39

**Janicki**, C. von. Ueber zwei neue Arten des genus *Davainea* aus celeb-sischen Säugern. Arch. parasit., Paris, **6**, 1902, (257-293, av. fig.). [1227 eg 1231 6019]. 40

Beziehungen zwischen Chromatin und Nucleolen während der Furchung des Eies von *Gyrodactylus elegans* von Nordm. Zool. Anz., Leip-zig, **26**, 1903, (241-245). [1215 1231]. 41

**Jenckel**, Adolf. Ueber den *Echino-coccus multilocularis* und sein Verhält-niss zum *Echinococcus hydatidosus*. [In: Pathologisch-anatomische Arbeiten, J. Orth gewidmet.] Berlin, 1903, (497-514). [1231]. 42

**Katsurada**, F. Einige Worte der Erwiderung an Herrn Yamagiwa [etr. *Distomum spathulatum*]. Beitr. path. Anat., Jena, **30**, 1901, (169-174). [1231]. 43

**Kholodkovsky**, N. Contribution à la connaissance des ténias des ruminants. Arch. parasit., Paris, **6**, 1902, (145-148, av. 1 fig.). [1231 6019]. 44

**Kowalewski**, Mieczysław. Etudes helminthologiques. VII. (Polonais) Kraków, Rozpr. Akad., **B**, **43**, 1903, (197-218, av. 3 pls.); Kraków, Bull. Intern. Acad., **1903**, (517-519, with 3 pls.). [1203 1231 1403 1431]. 45

**Kunkel**, B. W. v. Coe, W. R.

**Kunsemüller**, Friedrich. Zur Kennt-niss der polycephalen Blasenwürmer, insbesondere des *Coenurus cerebralis* Rudolphi und des *C. serialis* Gervais. Zool. Jahrb., Jena, Abt. f. Anat., **18**, 1903, (507-538, mit 4 Taf.). [1215 1231]. 47

**Laidlaw**, F. F. On a collection of Turbellaria Polycladida from the Straits of Malacca (Skeat Expedition, 1899-1900). London, Proc. Zool. Soc., **1903**, **1**, (301-318, pl. XXIII). [1227 eg 1231]. 48

The marine Turbellarin, with an account of the anatomy of some of the species. Fauna and Geography of the Maldive and Laccadive Archipelagoes, **1**, (283-310, pls. XIV and XV, text-figs. 61-73). [1207 1227 ma - 1231]. 49

On a land Planarian from Hulule, Male Atoll, with a note on *Leptoplana pardalis* Laidlaw. [Gardiner's] Fauna and Geography of the Maldive and Laccadive Archipelagoes, **II**, **1**, (579, 580). [1227 ma 1231]. 50

Suggestions for a revision of the classification of the Polyclad Turbellaria. Manchester Mem. Lit. Phil. Soc., **48**, 1903, (16, 2 pls.). [1231]. 51

Report on the land planarians. Fascic. Malay. Zool., **1**, (115-116). [1231]. 52

On the marine fauna of Zanzibar and British East Africa, from collections made by Cyril Crossland in the years 1901 and 1902. Turbellaria Polycladida. I. The Acotylea. London, Proc. Zool. Soc., **1903**, **2**, (99-113, pl. IX, text-figs. 3-7). [1227 ff 1231]. 53

**Lasarus-Barlow**, W. S. and Douglas, J. J. Preliminary note on a phase in the life-history of *Bilharzia haematobia*. Brit. Med. J., London, **1903**, (15). [1219 1231]. 54

**Leiper**, R. T. On an Acoelous Turbellarian inhabiting the common heart-urchin. London, Rep. Brit. Ass., **1902**, (652-653). [1019 1031 1219 1231]. 55

**Linstow**, [Otto] von. Parasiten, meistens Helminthen, aus Siam. Arch. Mikr. Anat., Bonn, **62**, 1903, (108-121, mit 1 Taf.). [1431 1427 ee 1231 1227 ee 0431 0427 ee]. 56

Bericht über die wissen-schaftlichen Leistungen in der Natur-geschichte der Helminthen im Jahre 1897, 1898, 1899. Arch. Natg., Berlin, **62**, Bd 2, H. 3, 1896, [1903], (1-128). [1203 1403]. 57

**Linstow**, [Otto] von. Helminthologische Beobachtungen. Centralbl. Bakt., Jena, Abt. 1, **34**, Originale, 1903, (526-531). [1203 1231 1431]. 58

— Neue Helminthen. Centralbl. Bakt., Jena, Abt. 1, **35**, Originale, 1903, (352-357). [1231 1431]. 59

— Entozoa des Zoologischen Museums der Kaiserlichen Akademie der Wissenschaften zu St. Petersburg. II. St. Petersburg, Ann. mus. zool. Ac. Sc., **8**, 1903, (265-294, Taf. 17, 18, 19). [1231 1431]. 60

— Drei neue Tänien aus Ceylon. Centralbl. Bakt., Jena, Abt. 1, **33**, Originale, 1903, (532-535). [1227 ef 1231]. 61

**Looss**, A. Die Distomenunterfamilie der *Haploporinae*. Arch. parasit., Paris, **6**, 1902, (128-143, av. fig.). [1231]. 62

**Lühe**, M[ax]. Eine nomenclatorische Berichtigung betr. die Cestoden-Gattung *Amphitretus* R. Bl. Centralbl. Bakt., Jena, Abt. 1, **33**, Originale, 1903, (608-609). [1231 0070]. 63

**Maclaren**, Normann. Ueber die Haut der Trematoden. Zool. Anz., Leipzig, **26**, 1903, (516-524). [1207 1231]. 64

**Manger**, Bartholomäus. Ueber einen Fall von *Echinococcus hydatidosus* der Leber und Milz. Diss. München (Druck v. Kastner & Callwey), 1903, (16). 22 cm. [1231]. 65

**Marcinowski**, K. Das untere Schlundganglion von *Distoma hepaticum*. Jenaische Zs. Natw., **37**, 1903, (544-550, mit 1 Taf.). [1207 1231]. 66

**Markov**, M. Sur un nouveau représentant du genre *Prostogonimus*, *P. anatinus* n. sp. (Russ.) Charikov, Trd. Obsč. ispyt. prir., **37**, 1902, [1903], (287-294), av. Rés. fr. (295-291, av. 1 Tab.). [1231]. 67

— Zur Turbellarienfauna der Umgegend von Charkow (Südrussland). Zool. Anz., Leipzig, **26**, 1903, (221-223). [1227 db 1231]. 68

**Mattiesen**, E. Die Eireifung und Befruchtung der Süßwasserendrocoelen. Zool. Anz., Leipzig, **27**, 1903, (34-39). [1215 1231]. 69

— Die Embryonalentwicklung der Süßwasserendrocoelen. Zool. Anz., Leipzig, **27**, 1903, (81-87). [1215 1231]. 69a

**Mell**, Camillo. Die Landplanarien der madagassischen Subregion. Frankfurt a. M., Abh. Senckenb. Ges., **27**, 1903, (191-236, mit 3 Taf.). [1227 fh 1231]. 70

**Mingassini**, P. Sull'esistenza di una secrezione emessa dalla superficie del corpo dei Cestodi adulti. Rassegna internazionale di Medicina moderna, Catania, **3**, (1901), 1902. [1211 1231] 71

**Monticelli** r. Parona.

**Morgan**, T[homas] H[unt]. Regeneration in *Bipalium* [with bibliography]. [Reprinted from the Archiv für Entwicklungsmechanik der Organismen **9**, 1900.] Bryn Mawr, Pa., Bryn Mawr Coll. Monogr., (Repr. Ser.), **1**, 1901, (563-586). [0211 1211 1231]. 72

— Regeneration in Planarians [with bibliography]. [Reprinted from Archiv für Entwicklungsmechanik der Organismen, **10**, 1900.] Bryn Mawr, Pa., Bryn Mawr Coll. Monogr., (Repr. Ser.), **1**, 1901, (1577-119, with text fig.). [0211 1211 1231]. 73

**O'Connor**, J. The surgical treatment of pulmonary hydatids. Lancet, London, **164**, 1903, (1433-1435). [1203]. 74

**Osborn**, H. L. On *Cryptogonimus* (n. g.) *chili* (n. sp.), a fluke with two ventral suckers. Zool. Anz., Leipzig, **26**, 1903, (315-318). [1231 1207]. 75

— On *Phyllodistomum americanum* (n. sp.); a new bladder distome from *Amblystoma punctatum* [with bibliography]. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **4**, 1903, (252-258). [1207 1231 5631]. 76

— *Bunodera cornuta* sp. nov.: a new parasite from the crayfish and certain fishes of Lake Chautauqua, N.Y. [with bibliography]. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **5**, 1903, (63-73, with fig. in text). [1219 1227 gg 1231 2631 5419]. 77

**Owen**, E. v. Vintras, G. C. L.

**Parona**, [Corrado] e **Monticelli**, [F. Saverio]. Sui generi *Placunella* e *Trechopus*. Mon. zool. ital., Firenze, **13**, 1902, (Supplemento), (46-48). [1231]. 78

**Pearl**, Raymond. Planarians. J. Appl. Microsc., Rochester, N.Y., **6**, 1903, (2360-2362). [1231]. 79

- Petrie, J.** *Bilharzia haematobia*. Brit. Med. J., London, 1903, 2, (133). [1231]. 80
- Ponomareff, Tatiana.** Recherches expérimentales sur la greffe des Echinocoques dans la cavité abdominale des lapins. Thèse Méd. (Lausanne), Lausanne (Guesse), 1903, (40). 8vo. [1219 1231 6019]. 81
- Priesack, August.** Ein Fall von Alveolar-Echinococcus der Leber. Diss. München (Druck v. Kastner & Lossen), 1902, (15). 22 cm. [1231]. 82
- Punnett, R. C.** On the nemertean of Norway. Bergens Mus. Aarb., 1903, No. 2, (35, with 2 pl.). [1207 1227 da 1231]. 83
- Ransom, B. H.** On *Hymenolepis curioca* (Magahae) and *H. megalops* (Nitzsch), with remarks on the classification of the group. [With bibliography]. Lincoln, Stud. Zool. Lab., Univ. Nebr., No. 47, 1902, (151-172, 3 pls.). Separate. 23.5 cm. [1231]. 84
- Rátz, István.** Ueber wenig bekannte *Opisthorchiinae*. (Ungarisch) Allatt. Közlem., Budapest, 2, 1903, (83-88, Taf. X.). [1231]. 85
- Un genre nouveau de Fascicolides. Budapest, Ann. Hist. Nat. Mus. Hung., 1, 1903, (413-432, mit Taf. XVI). [1207 1231]. 86
- Reuss, Hans.** Die Cercarie und Sporocyste des *Distomum duplicatum* Baer. Zs. wiss. Zool., Leipzig, 74, 1903, (458-477, mit 1 Taf.). [1215 1231]. 87
- Rizzo, Agostino.** La fauna elmintologica dei rettili nella provincia di Catania. Arch. parasit., Paris, 6, 1902, (26-41). [1227 dh 1231 1427 dh 1431 5619]. 88
- Rosseter, T. B.** On the anatomy of *Drepanidotaenia tenuirostris*. London, J. Quek. Microsc. Cl., 8, No. 52, 1903, (399-406, pl. XX). [1207 1231]. 89
- Sabrazas, J.** Blutuntersuchung bei Hydatidencysten; lokale und allgemeine Eosinophilie. Münchener med. Wochenschr., 50, 1903, (553-554). [1231 1203]. 90
- Schneider, Guido.** Das Vorkommen von Larven des Bandwurms *Bothriotaenia proboscidea* Batsch im Magen und Darm von Ostseeheringen (*Clupea harengus membras* L.). Berlin, SitzBer. Ges. natf. Freunde, 1902, (28-30). [1219 1231 5431]. 91
- Schor, Marie.** Contribution à l'étude du *Bothriocephalus latus* Brems. Sa distribution dans le canton de Vaud. Lausanne, Thèse med. 1901/1902. Lausanne, 1902, (29). 8vo. [1227 di 1231]. 92
- Seager, F. R.** Note on a case of hydatid cyst of the spleen. Lancet, London, 1903, (655). [1203]. 93
- Sekera, Emil.** Erneute Untersuchungen über die Geschlechtsverhältnisse der Stenostomiden. (Vorläuf. Mitt.) Zool. Anz., Leipzig, 26, 1903, (537-544, 569-577, 601-608). [1207 1215 1231]. 94
- Einige Beiträge zur Lebensweise von *Vortex heluo* (*viridis* M. Sch.). Zool. Anz., Leipzig, 26, 1903, (703-710). [1219 1231]. 95
- Senoo, Hidemi.** Studies on Cercaria. 1. (Japanese) Dobuts. Z., Tokyo, 15, 1903, (307-311). [1231]. 96
- Shipley, A. E.** On the ento-parasites collected by the "Skeat Expedition" to Lower Siam and the Malay Peninsula in the years 1899-1900. London, Proc. Zool. Soc., 1903, 2, (145-156, pl. XVI). [0419 0427 eg 1431 1227 ef 1427 eg ee 1231]. 97
- Skorikov, A. S.** Zur Parasitologie der Störe. (Russ.) Věst. rybopromysl., St. Peterburg, 1903, 18, (63-82). [0819 1219 1419 5419]. 98
- Squire, J. E.** A case of hydatid disease of the lung: spontaneous recovery. Lancet, London, 1903, (387). [1203]. 99
- Stafford, J.** Two Distomes from Canadian Urodela. Centralbl. Bakt., Jena, Abt. 1, 34, Originale, 1903, (822-830, mit 1 Taf.). [1231 5603]. 100
- Stiles, Charles W[ardell].** Notes on parasites. 56. *Echinostomum buricola* Looss and *E. elaeocinum* Braun from a nomenclatural standpoint. Science, New York, N.Y., (N. Ser.), 13, 1901, (593-594). [1231]. 101
- The dwarf tapeworm (*Hymenolepis nana*), a newly recognised and probably rather common American parasite. [Address before the medical and surgical faculty of Maryland delivered Sept. 24, 1903.] New York Medical Journal, New York, N.Y., 78, 1903, (877-881). [1231]. 102

**Stiles, H. J.** Operation for hydatid cyst of the liver. *Lancet*, London, **164**, 1903, (105). [1203]. 103

**Sullivan, W. C.** A case of *Cysticercus cellulosae* of the brain. *J. mental Sci.*, London, **49**, 1903, (115-116). [1231 1203]. 104

**Sykes, H. W.** Hydatid cyst of the liver. *Lancet*, London, **164**, 1903, (1166). [1203]. 105

**Vintras, G. C. I. and Owen, E.** Hydatid cyst on the under aspect of the liver. *Lancet*, London, **165**, 1903, (97). [1203]. 106

**Voigt, [Walther].** Ueberreste der Eiszeitfauna in mittelhessischen Gebirgsbächen. *Verh. D. Geogr. Tag.* Berlin, **14**, 1903, (216-224). [1227 de]. 107

**Wacke, Robert.** Beiträge zur Kenntnis der Temnocephalen. (*Temnocephala chilensis*, *Temnocephala tumesiana* n. sp. und *Temnocephala novae-zelandiae*.) *Zool. Jahrb.*, Jena, Suppl. **6**, 1903, (1-116, mit 9 Taf.). [1207 1231]. 108

**Warren, E.** On the anatomy and development of *Distomum cirrigerum* v. Baer. *Q. J. Microsc. Sci.*, London, **47**, 1903, (273-301, pls. XXIV-XXVI). [1207 1215 1231]. 109

**Winter, Bruno.** Ein Fall von *Cysticercus cellulosae* im III Ventrikel des Gehirns. *Diss.* Leipzig. Münster (Druck v. J. Bredt), 1901, (29). 20 cm. [1231 1203]. 110

**Yamagiwa, K.** Einige Bemerkungen zu dem Aufsatz des Herrn Katsurada: Beitrag zur Kenntnis des *Distomum spathulatum*. *Beitr. path. Anat.*, Jena, **30**, 1901, (155-168). [1231]. 111

**Zabusov, I. P.** Tricladenstudien. IV. Erster vorläufiger Bericht über die von Herrn V. Garfajev im Baikalsee gesammelten Planarien. (Russ.) *Kazan', Trd. Obšč. jest.*, **36**, 1903, pt. 6 (37); *dtsh. Rés.*, (40-58, mit 1 Taf.). [1227 ea 1231]. 112

**Zacharias, Otto.** Zur Kenntnis der niederen Flora und Fauna holsteinischer Moorsümpfe. *Plön. ForschBer. biol. Stat.*, **10**, 1903, (223-289, mit 1 Taf.). [0227 de 0231 1231 0431]. 113

**Zinn, Wilhelm.** Tödliche Anämie durch *Bothriocephalus latus*. *D. med. Wochenschr.*, Berlin, **29**, 1903, (264-266). [1231 1203]. 114

**Zschokke, [Friedrich].** Fauna helvetica. Heft 8: Parasitische Würmer. Bibliographie der schweizerischen Landeskunde. Fascikel IV 6. Bern (K. J. Wyss), 1902, (IV + XII + 39). 8vo. [0030 1227 di 1231 1427 di 1431]. 115

——— Die arktischen Cestoden. (*Fauna Arctica*, **3**.) Jena, 1903, (1-32, mit 2 Taf.). [1227 k 1231]. 116

——— Ein neuer Fall von *Dipylidium caninum* (L.) beim Menschen. (*Centralbl. Bakt.*, Jena, Abt. **1**, **34**, Originale, 1903, (42-43). [1231 1219]. 117

## 1203 COMPREHENSIVE AND GENERAL WORKS.

### GENERAL.

**Kowalewski, Mieczysław.** Études helminthologiques. VII. Kraków, Rozpr. Akad., **B**, **43**, 1903, (194-218 av. 3 pls.) (Polonais); Kraków, *Bull. Intern. Acad.*, **1903**, (517-519, av. 3 pls.).

**Linstow, [Otto] von.** Bericht über die wissenschaftlichen Leistungen in der Naturgeschichte der Helminthen im Jahre 1897, 1898; 1899. *Arch. Natg.*, Berlin, **62**, Bd 2, H. 3, 1896, [1903], (1-128).

——— Helminthologische Beobachtungen. *Centralbl. Bakt.*, Jena, Abt. **1**, **34**, Originale, 1903, (526-531).

### TREATISES.

**Bürger, Otto.** Nemertini (Schnurwürmer). (H. G. Bronn's Klassen u. Ordnungen des Thier-Reichs, Bd 4, Suppl., Lfg 18-22.) Leipzig (C. F. Winter), 1903, (289-384, mit Taf.) 26 cm. 7,50 M.

### MEDICAL.

**Altmann, C. A.** Hydatid cyst of the heart: rupture into the left auricle. *Lancet*, London, **164**, 1903, (677).

**Black, R. S.** A case of *Cysticercus cellulosae*, causing insanity. *J. mental Sci.*, London, **49**, 1903, (110-115).

**Fedorov, Nathalie.** L'anémie bothriocéphalique. *Arch. parasit.*, Paris, **6**, 1902, (207-244).

O'Connor, J. The surgical treatment of pulmonary hydatids. *Lancet*, London, **164**, 1903, (1433-1435).

Sabrazès, J. Blutuntersuchung bei Hydatidencysten, lokale und allgemeine Eosinophilie. *Munchener med. Wochenschr.*, **50**, 1903, (553-554).

Seager, F. R. Note on a case of hydatid cyst of the spleen. *Lancet*, London, **164**, 1903, (655).

Squire, J. E. A case of hydatid disease of the lung: spontaneous recovery. *l.c.* **165**, 1903, (387).

Stiles, H. J. Operation for hydatid cyst of the liver. *l.c.* **164**, 1903, (105).

Sullivan, W. C. A case of *Cysticercus cellulosae* of the brain. *J. mental Sci.*, London, **49**, 1903, (115-116).

Syers, H. W. Hydatid cyst of the liver. *Lancet*, London, **164**, 1903, (1166).

Vintras, G. C. and Owen, E. Hydatid cyst on the under aspect of the liver. *l.c.* **165**, 1903, (97).

Winter, Bruno. Ein Fall von *Cysticercus cellulosae* im III Ventrikel des Gehirns. Diss. Leipzig. Munster (Druck v. J. Bredt), 1901, (29). 20 cm.

Zinn, Wilhelm. Tödliche Anämie durch *Bothriocephalus latus*. *D. med. Wochenschr.*, Berlin, **29**, 1903, (264-266).

## 1207 STRUCTURE.

### GENERAL.

Bergendal, [David]. Berichtigung [zu dem Aufsatz über d. Bau des Kopfes von Heteronemertinen, *Zool. Anz.*, Bd 26, S. 254 ff.]. *Zool. Anz.*, Leipzig, **26**, 1903, (438).

Goe, W. R. and Kunkel, B. W. A new species of Nemertean (*Cerebratulus melanocephalus*) from the Gulf of St. Lawrence. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **4**, 1903, (119-124).

Curtis, W. C. *Crossobothrium lacinatum* and developmental stimuli in the Cestoda. *l.c.* **5**, 1903, (125-142, with text fig.).

Laidlaw, F. F. The marine Turbellaria, with an account of the anatomy of some of the species. [Gardiner's] Fauna and Geography of the Maldives and Laccadive Archipelagoes, **1**, (283-310, pls. XIV-XV, text-figs. 61-73).

(N 2-9053)

Osborn, Henry Leslie. On *Phyllostomum americanum* (n. sp.); a new bladder distome from *Amblystoma punctatum* [with bibliography]. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **4**, 1903, (252-258).

— On *Cryptogonimus* (n. g.) *chili* (n. sp.), a fluke with two ventral suckers. *Zool. Anz.*, Leipzig, **26**, 1903, (315-318).

Punnett, R. C. On the nemerteans of Norway. *Bergens Mus. Aarb.*, **1903**, No. 2, (35, with 2 pls.).

Ráts, István. Un genre nouveau de Fascicolides. (Ungarisch und Französisch) Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., **1**, 1903, (413-432, Taf. XVI).

Rosseter, T. B. On the anatomy of *Drepanidotaenia tenuirostris*. London, J. Quek. Microsc. Cl., **8**, No. 52, 1903, (399-406, pl. XX).

Wacke, Robert. Beiträge zur Kenntniss der Temnocephalen. (*Temnocephala chilensis*, *Temnocephala tumesiana* n. sp. und *Temnocephala novae-zelandiae*.) *Zool. Jahrb.*, Jena, Suppl. **6**, 1903, (1-116, mit 9 Taf.).

Warren, E. On the anatomy and development of *Distomum cirrigerum* V. Baer. *Q. J. Microsc. Sci.*, London, **47**, 1903, (273-301, pls. XXIV-XXVI).

### TEGUMENT.

Maclaren, Normann. Ueber die Haut der Trematoden. *Zool. Anz.*, Leipzig, **26**, 1903, (516-524).

### NERVOUS SYSTEM AND ORGANS OF SENSE.

Bergendal, [David]. Bemerkungen über einige Angaben, den Bau des Kopfes einiger Heteronemertinen betreffend. *Zool. Anz.*, Leipzig, **26**, 1903, (254-257).

— Ueber „Sinnesgrübchen“ im Epithel des Vorderkopfes bei *Carinoma armandi* sp. McInt. (Oudemans) nebst einigen systematischen Bemerkungen über die Arten dieser Gattung. *l.c.* (608-619).

Marcinowski, K. Das untere Schlundganglion von *Distoma hepaticum*. *Jenaische Zs. Natw.*, **37**, 1903, (544-550, mit 1 Taf.).



## REPRODUCTIVE ORGANS.

**Sekera, Emil.** Erneute Untersuchungen über die Geschlechtsverhältnisse der Stenostomiden. (Vorläuf. Mitt.) Zool. Anz., Leipzig, **26**, 1903, (537-544, 569-577, 601-608).

## 1211 PHYSIOLOGY.

## GENERAL.

**Mingassini, Pio.** Sull'esistenza di una secrezione emessa dalla superficie del corpo dei Cestodi adulti. Rassegna internazionale di Medicina moderna Catania, **3**, (1901), 1902.

## REGENERATION.

**Child, C. M.** Form-regulation in Coelentera and Turbellaria. Washington, D.C., Smithsonian Inst. Misc. Collect. Q. Issue, **45**, 1903, (134-143, with pl.).

— Studies on regulation. I. Fission and regulation in *Stenostoma*. II. Experimental control of form-regulation in zooids and pieces of *Stenostoma*. Arch. EntwMech., Leipzig, **15**, 1902-1903, (187-237, 355-420, 603-637, mit 5 Taf.).

## 1215 DEVELOPMENT.

## GENERAL.

**Warren, E.** On the anatomy and development of *Distomum cirrigerum* v. Baer. Q. J. Microsc. Sci., London, **47**, 1903, (273-301, pls. XXIV-XXVI).

## OOGENESIS AND OVUM.

**Breslau, E.** Die Sommer- und Winter Eier der Rhabdocölen des süßen Wassers und ihre biologische Bedeutung. Verh. D. zool. Ges., Leipzig, **13**, 1903, (126-139).

**Mattiesen, E.** Die Eireifung und Befruchtung der Süßwasserendrocoelen. Zool. Anz., Leipzig, **27**, 1903, (34-39).

**Sekera, Emil.** Erneute Untersuchungen über die Geschlechtsverhältnisse der Stenostomiden. (Vorläuf. Mitt.) l.c. **26**, 1903, (537-544, 569-577, 601-608).

## PHENOMENA OF FERTILIZATION.

**Curtis, W. C.** *Crossobothrium lacinatum* and developmental stimuli in the Cestoda. Woods Holl, Mass., Mar. Biol. Lab. Bull., **5**, 1903, (125-142, with text fig.).

**Mattiesen, E.** Die Eireifung und Befruchtung der Süßwasserendrocoelen. Zool. Anz., Leipzig, **27**, 1903, (34-39).

## EMBRYOLOGY, ORGANOGENY.

**Dévé, F.** Sur l'évolution kystique du scolex échinococcique. Arch. parasit., Paris, **6**, 1902, (54-81, av. 11 fig.).

**Janicki, C. von.** Beziehungen zwischen Chromatin und Nucleolen während der Furchung des Eies von *Gyrodactylus elegans* von Nordm. Zool. Anz., Leipzig, **26**, 1903, (241-245).

**Kunsemler, Friedrich.** Zur Kenntniss der polycephalen Blasenwürmer, insbesondere des *Coenurus cerebralis* Rudolphi und des *C. serialis* Gervais. Zool. Jahrb., Jena, Abt. f. Anat., **18**, 1903, (507-538, mit 4 Taf.).

**Mattiesen, E.** Die Embryonalentwicklung der Süßwasserendrocoelen. Zool. Anz., Leipzig, **27**, 1903, (81-87).

## CYCLES OF GENERATIONS.

**Hartmann, Max.** Die Fortpflanzungsweisen der Organismen, erläutert an Protozoen, Volvocineen und Dicyemiden (zugleich Mitteilung über den Generationswechsel der Dicyemiden). Hab.-Schr. Giessen. Leipzig (G. Thieme), 1903, (43). 23 cm.

## LARVAL FORMS AND METAMORPHOSIS.

**Haswell, W. A.** . . . Sporocysts . . . in *Mytilus latus*. Sydney, N.S.W., Proc. Linn. Soc. N.S. Wales, **27**, (1902), 1903, (497-515, with 2 pls.).

**Reuss, Hans.** Die Cercarie und Sporocyste des *Distomum duplicatum* Baer. Zs. wiss. Zool., Leipzig, **74** 1903, (458-477, mit 1 Taf.).

## 1219 ETHOLOGY.

## GENERAL.

**Clare, W.** Contribution à l'étude de la faune helminthologique de l'Oural. Rev. Suisse Zool., Genève, **11**, 1903, (241-368, av. 4 pls. et 6 figs.).

**Cohn, Ludwig.** Zur Kenntnis einiger Trematoden. Centralbl. Bakt., Jena, Abt. 1, **34**, Originale, 1903, (35-42).

**Jameson, H. L.** On the origin of pearls. [Due to a *Distomum cercaria* = *D. somaticae*.] Nature, London, **67**, 1903, (280-282, 3 figs.).

**Lasarus-Barlow, W. S. and Douglas, J. J.** Preliminary note on a phase in the life-history of *Bitharzia haematobia*. Brit. Med. J., London, **1903**, **1**, (15).

## HABITS.

**Bohn, Georges.** Sur les mouvements oscillatoires de *Convoluta roscoffensis*. Paris, C.-R. Acad. sci., **137**, 1903, (573-578).

## SYMBIOSIS.

**Gamble, W. and Keeble, F.** The bionomics of *Convoluta roscoffensis*, with special reference to its green cells. Q. J. Microsc. Sci., London, **47**, 1903, (363-431, pls. XXX-XXXI).

**Sekera, Emil.** Einige Beiträge zur Lebensweise von *Vortex heluo* (*viridis* M. Sch.). Zool. Anz., Leipzig, **26**, 1903, (703-710).

## PARASITISM.

**Blair, W. Reid.** *Cysticerci* in wild ruminants. New York, N.Y., Rep. Zool. Soc., **1902**, 1903, (137-144).

**Dévé, F.** Inoculations échinococciques au cobaye. Paris, C.-R. soc. biol., **55**, 1903, (122-123).

**Drago, U.** Sull' attacco e sul parasitismo del *Distomum contortum*. Catania, Atti Acc. Gioenia, (Ser. 4), **15**, (79, 1902), 1902, (4, con fig.). (Sunto). Boll. Acc. Gioenia, (N. Ser.), **1902**, fasc. 74, (20).

**Galli-Valerio, Bruno.** Notes de parasitologie. Centralbl. Bakt., Jena, Abt. 1, **35**, Originale, 1903, (81-91).

**Gulart, Jules.** Parasitologie pratique: I. Le ver solitaire. Bul. sci. pharm., Paris, **5**, [t. 3, Pt. profess.], 1901, (17-(n 2-9053))

**22**, 113-117, 223-227, av. 6 pl. et fig.); Les parasites de l'intestin et leur recherche dans les matières fécales. L.c. **6**, 1902, (152-157, 199-208, av. fig.).

**Hofar, Bruno.** Ein Fall von perniziöser Anämie durch *Octobothrium sagittatum* bei der Regenbogenforelle. Allg. Fischereiztg. München, **28**, 1903, (38-39).

**Leiper, R. T.** On an Acoelous Turbellarian inhabiting the common heart-urchin. London, Rep. Brit. Ass., **1902**, (652-653).

**Osborn, Henry Leslie.** *Bunodera cornuta* sp. nov.; a new parasite from the crayfish and certain fishes of Lake Chautauqua [with bibliography]. Woods Holl, Mass., Mar. Biol. Lab. Bull., **5**, 1903, (63-73, with fig. in text).

**Ponomareff, Tatiana.** Recherches expérimentales sur la greffe des Echinocoques dans la cavité abdominale des lapins. Thèse Méd. (Lausanne), Lausanne (Guese), 1903, (40). 8vo. )

**Schneider, Guido.** Das Vorkommen von Larven des Bandwurms *Bothriotrema proboscidea* Batsch im Magen und Darm von Ostseeheringen (*Clupea harengus membras* L.). Berlin, Sitzber. Ges. Natf. Freunde, **1902**, (28-30).

**Skorikov, A[leksandr] S[tepanovič].** Zur Parasitologie der Störe. (Russ.) Věst. Rybopromysl., St. Peterburg, **1903**, **18**, (63-82, mit 1 Taf.).

**Zachokke, F[riz].** Ein neuer Fall von *Dipylidium caninum* (L.) beim Menschen. Centralbl. Bakt., Jena, Abt. 1, **34**, Originale, 1903, (42-43).

1223 VARIATION AND  
ÆTIOLOGY.

## EVOLUTION.

**Fuhrmann, O.** L'évolution des ténias et en particulier de la larve des Ichthyoténias. Arch. Sci. Phys., Genève, (sér. 4), **16**, 1903, (335-337).

1227 GEOGRAPHICAL  
DISTRIBUTION.

d EUROPE.

da SCANDINAVIA.

**Punnett, R. C.** On the nemertean of Norway. Bergens Mus. Aarb., **1903**, No. 2, (35, with 2 pls.).

## db RUSSIA IN EUROPE.

**Claro, W.** Contribution à l'étude de la faune helminthologique de l'Oural. Rev. Suisse Zool., Genève, **11**, 1903, (241-368, av. 4 pls. et 6 figs.).

**Markow, Mich.** Zur Turbellarienfauna der Umgegend von Charkow (Südrussland). Zool. Anz., Leipzig, **26**, 1903, (221-223).

## dc GERMAN EMPIRE.

**Voigt, [Walther].** Ueberreste der Eiszeitfauna in mittelhessischen Gebirgsbächen. Verh. D. Geogr. Tag, Berlin, **14**, 1903, (216-224).

## de BRITISH ISLANDS.

**Herdman, W. A.** [Trematoda.] In: The new biological station at Port Erin, being the 16th annual report of the Liverpool Marine Biology Committee. Liverpool, Trans. Biol. Soc., **17**, 1903, (15-67).

## di SWITZERLAND.

**Ansheles-Wolownik, Bascheva.** Ueber den multiocularen Echinokokkus mit spezieller Berücksichtigung seines Vorkommens in der Schweiz. Zürich, Med. Diss., 1903-04, Darmstadt, 1903, (16, 1 Taf.). 8vo.

**Schor, Marie.** Contribution à l'étude du *Bothriocephalus latus* Brems. Sa distribution dans le canton de Vaud. Lausanne Thèse méd., 1901-02. Lausanne, 1902, (29). 8vo.

**Zschokke, Friedrich.** Fauna helvetica. Heft 8: Parasitische Würmer. Bibliographie der schweizerischen Landeskunde Fascikel IV 6. Bern (K. J. Wyss), 1902, (iv + xii + 39). 8vo.

## dk AUSTRIA HUNGARY.

**Rizzo, Agostino.** La fauna elmintologica dei rettili nella provincia di Catania. Arch. parasit., Paris, **6**, 1902, (26-41).

## e ASIA.

## ea ASIATIC RUSSIA.

**Gariaev, V. P.** Bericht über eine Reise zur Untersuchung der Evertbrautenfauna des Baikal See's im Sommer

1900 u. 1901. (Russ.) St. Petersburg, Trd. Troick-Kiacht. Otd. Russ. Geogr. Obsč., **V**, 2, 1902, [1903], (27-48, mit 1 Karte).

**Zabusov, I. P.** Tricladenstudien IV. Erster vorläufiger Bericht über die von Herrn V. Gariajev im Baikalsee gesammelten Planarien. (Russ.) Kazan, Trd. Obsč. jest., **36**, 1903, pt. 6, (37); dtsch. Rés., (40-58, mit 1 Taf.).

## ee SIAM.

**Linstow, [Otto] von.** Parasiten, meistens Helminthen, aus Siam. Arch. mikr. Anat., Bonn, **62**, 1903, (108-121, mit 1 Taf.).

## ef BRITISH INDIA.

**Linstow, [O. F. B.] von.** Drei neue Tänien aus Ceylon. Centralbl. Bakt., Jena, Abt. 1, **33**, Originale, 1903, (532-535).

**Shipley, A. E.** On the ento-parasites collected by the "Skeat Expedition" to Lower Siam and the Malay Peninsula in the years 1899-1900. London, Proc. Zool. Soc., **1903**, 2, (145-156, pl. XVI).

## eg MALAY PENINSULA.

**Janicki, C. von.** Ueber zwei neue Arten des genus *Davainea* aus celebensischen Säugern. Arch. parasit., Paris, **6**, 1902, (257-293, av. fig.).

**Laidlaw, F. F.** On a collection of Turbellaria Polycladida from the Straits of Malacca (Skeat Expedition, 1899-1900). London, Proc. Zool. Soc., **1903**, 1, (301-318, pl. XXIII).

## f AFRICA.

## ff EAST AFRICA.

**Laidlaw, F. F.** On the marine fauna of Zanzibar and British East Africa, from collections made by Cyril Crossland in the years 1901 and 1902. Turbellaria Polycladida. I. The Acotylea. London, Proc. Zool. Soc., **1903**, 2, (99-113, pl. IX, text-figs. 3-7).

## fh MADAGASCAR.

**Moll, Camillo.** Die Landplanarien der madagassischen Subregion. Frankfurt a. M., Abh. Senckenb. Ges., **27**, 1903, (191-236, mit 3 Taf.).

## g NORTH AMERICA.

## gg NORTH-EASTERN UNITED STATES.

**Osborn, Henry Leslie.** *Bunodera cornuta* sp. nov.: a new parasite from the crayfish and certain fishes of Lake Chautauqua [with bibliography]. Wood's Holl, Mass., Mar. Biol. Lab. Bull., 5, 1903, (63-73, with fig. in text).

## k ARCTIC.

**Bürger, Otto.** Die Nemertinen. (Fauna Arctica, 3.) Jena, 1903, (55-64, mit 1 Taf.).

**Zachokke, F[ritz].** Die arktischen Cestoden. l.c. (1-32, mit 2 Taf.).

## m INDIAN OCEAN.

## ma OCEAN AND ISLANDS N. OF EQUATOR.

**Laidlaw, F. F.** The marine Turbellaria, with an account of the anatomy of some of the species. [Gardiner's] Fauna and Geography of the Maldives and Laccadive Archipelagoes, 1, (288-310, pls. XIV-XV, text-figs. 61-73).

——— On a land Planarian from Huhule, Male Atoll, with a note on *Leptoplana pardalis* Laidlaw. l.c. II, 1, (579-580).

## 1231 TAXONOMY AND SYSTEMATIC.

## PLATYHELMINTHES.

## GENERAL.

**Rizzo, A.** La fauna elmintologica dei rettili nella provincia di Catania. Arch. parasit., Paris, 6, 1902, (26-41).

**Zachokke, F.** Fauna helvetica. Heft 8: Parasitische Würmer. Bibliographie der schweizerischen Landeskunde. Fascikel IV 6. Bern (K. J. Wyss), 1902, (iv + xii + 39). 8vo.

## TURBELLARIA.

## GENERAL.

**Bresslau, E.** Die Sommer- und Winterer der Rhabdocölen des süßen Was-

sers und ihre biologische Bedeutung. Verh. D. zool. Ges., Leipzig, 13, 1903, (126-139).

**Child, C. M.** Form-regulation in Coelentera and Turbellaria. Washington, D.C., Smithsonian Inst. Misc. Collect., Q. Issue, 45, 1903, (134-143, with pl.). Separate. 24.5 cm.

**Gariaev, V. P.** Evertbratenfauna des Baikalsees. (Russ.) St. Petersburg, Trd. Troick-Klacht. Otd. Russ. Geogr. Obsč., V, 2, 1902, [1903], (27-48, av. 1 carte).

**Laidlaw, F. F.** On a collection of Turbellaria Polycladida from the Straits of Malacca (Skeat Expedition, 1899-1900). London, Proc. Zool. Soc., 1903, 1, (301-318, pl. XXIII).

——— Suggestions for a revision of the classification of the Polyclad Turbellaria. Manchester, Mem. Lit. Phil. Soc., 48, 1903, (16, 2 pls.).

——— Report on the land planarians. Fascic. Malay. Zool., 1, (115-116).

**Leiper, R. T.** On an acelous Turbellarian inhabiting the common heart-urchin. London, Rep. Brit. Ass., 1902, (652-653).

**Markow, M.** Zur Turbellarienfauuna der Umgegend von Charkow (Süd-russland). Zool. Anz., Leipzig, 26, 1903, (221-223).

**Mattieson, E.** Die Eireifung und Befruchtung der Süßwasserendrocoelen. l.c. 27, 1903, (34-39).

——— Die Embryonalentwicklung der Süßwasserendrocoelen. l.c. 27, 1903, (81-87).

**Mell, C.** Die Landplanarien der madagassischen Subregion. Frankfurt a. M., Abh. Senckenb. Ges., 27, 1903, (191-236, mit 3 Taf.).

**Pearl, R.** Planarians. J. Appl. Microsc., Rochester, N.Y., 6, 1903, (2360-2362).

**Sekera, Emil.** Erneute Untersuchungen über die Geschlechtsverhältnisse der Stenostomiden. (Vorläuf. Mitt.). Zool. Anz., Leipzig, 26, 1903, (537-544, 569-577, 601-608).

**Zabusov, J. P.** Tricladenstudien IV. Erster vorläufiger Bericht über die von Herrn V. Gariaev im Baikalsee gesammelten Planarien. (Russ.) Kazan',

Trd. Obšč. jest., **36**, 1903, pt. 6, (37);  
dtsch. Rés., (40-58, mit 1 Taf.)

## SPECIAL.

*Amblyplana kükenthali* n. sp. **Mell.**  
C. Frankfurt a. M., Abh. Senckenb.  
Ges., **27**, 1903, (191-236).

*Asthenoceros* n. gen., *A. woodworthi*  
n. sp. Malacca Straits. **Laidlaw**, F. F.  
London, Proc. Zool. Soc., **1903**, 1, (315-  
316, pl. XXIII fig. 7).

*Bergendalia* n. gen., *B. anomala* n. sp.  
Malacca Straits. **Laidlaw**, F. F. l.c.  
(310-312, pl. XXIII, figs. 4, 5, 6, and 8).

*Bipalium* nn. spp. **Mell.**, C. Frank-  
furt a. M., Abh. Senckenb. Ges., **27**,  
1903, (191-236).

———— *jalorense* n. sp. Malay  
Peninsula. **Laidlaw**, F. F. Fascic.  
Malay. Zool., **1**, (115).

———— *keuense*, geographical dis-  
tribution. **Clapp**, G. H. Pittsburg,  
Pa., Ann. Carnegie Mus., **1**, 1901, (253-  
254).

*Cestoplana* nn. spp. **Laidlaw**, F. F.  
Fauna Mald. Laccad. Arch., **1**, (290,  
302).

———— *filiformis* n. sp. **Laidlaw**,  
F. F. London, Proc. Zool. Soc., **1903**,  
2, (110-111).

*Convoluta rosoffensis*, mouvements  
oscillatoires. **Bohn**, G. Paris, C. R.  
Acad. sci., **137**, 1903, (573-578).

———— bionomics with  
special reference to the green cells.  
**Gamble**, F. W. and **Keeble**, E. Q. J.  
Microsc. Sci., London, **47**, 1903, (363-  
431, pls. XXX-XXXI).

*Disparoplana* n. gen., *D. dubia* n. sp.  
**Laidlaw**, F. F. London, Proc. Zool.  
Soc., **1903**, 2, (103-105, pl. IX, fig. 2).

*Haploplana* n. gen., *H. elioti* n. sp.  
**Laidlaw**, F. F. l.c. (109-110, pl. IX,  
fig. 4).

*Latocetus argus* n. sp. Malacca  
Straits. **Laidlaw**, F. F. l.c. **1**, (312-  
313).

*Leptoplana malayana* n. sp. Malacca  
Straits. **Laidlaw**, F. F. l.c. (306-308,  
pl. XXIII, fig. 3).

———— *pardalis* n. sp. **Laidlaw**,  
F. F. Fauna Mald. Laccad. Arch., **1**,  
(287-290).

*Leptoplana pardalis*, synonymous  
with *L. subviridis*. **Laidlaw**, F. F.  
l.c. **II**, **1**, (579-580).

*Notoplana* n. gen., *N. evansii* n. sp.  
Malacca Straits. **Laidlaw**, F. F. London,  
Proc. Zool. Soc., **1903**, **1**, (302-303,  
XXIII, fig. 2).

*Ommatoplana* n. gen., *O. tuberculata*  
n. sp. **Laidlaw**, F. F. l.c. **2**, (111-112,  
pl. IX, figs. 5-7).

*Paraplanocera aurora* n. sp. **Laidlaw**,  
F. F. l.c. (102-103, pl. IX, fig. 1).

*Phylloplana* n. gen., *P. lactea*  
n. sp. **Laidlaw**, F. F. l.c. (107-109,  
pl. IX, fig. 3).

*Planaria* nn. spp. Baikalsee.  
**Zabusov**, I. P. Kazan', Trd. Obšč.  
jest., **36**, 1903, pt. 6, (47); deutsches  
Rés., (40-58).

*Planocera* nn. spp. **Laidlaw**, F. F.  
Fauna Mald. Laccad. Arch., **1**, (282-  
286).

———— *crosslandi* n. sp. **Laidlaw**,  
F. F. London, Proc. Zool. Soc., **1903**,  
**2**, (100).

*Procotyla baicalensis* n. sp. Baikalsee.  
**Zabusov**, I. P. Kazan', Trd. Obšč.  
jest., **36**, 1903, pt. 6, (47);  
deutsches Rés., (40-58).

*Prosthlostomum* nn. spp. **Laidlaw**,  
F. F. Fauna Mald. Laccad. Arch., **1**,  
(298-301).

———— *pallidum* n. sp. Malacca  
Straits. **Laidlaw**, F. F. London, Proc.  
Zool. Soc., **1903**, **1**, (317).

*Pseudoceros* nn. spp. Malacca Straits.  
**Laidlaw**, F. F. l.c. (314-315, pl. XXIII,  
figs. 9, 10).

———— nn. spp. **Laidlaw**, F. F.  
Fauna Mald. Laccad. Arch., **1**, (296-297).

*Rhynchodemus nematoïdes* Loman.  
Malay Peninsula. **Laidlaw**, F. F.  
Fascic. Malay. Zool., **1**, (116).

*Rimacephalus punctatus* n. sp. Baikalsee.  
**Zabusov**, I. P. Kazan', Trd. Obšč.  
jest., **36**, 1903, pt. 6, (37);  
deutsches Rés., (40-58).

*Semonia penangensis* n. sp. Malacca  
Straits. **Laidlaw**, F. F. London, Proc.  
Zool. Soc., **1903**, **1**, (308-309).

*Sorocelis* nn. spp. Baikalsee. **Zabu-**  
**sov**, I. P. Kazan', Trd. Obšč. jest., **36**,  
1903, pt. 6, (37); deutsches Rés., (40-  
58).

*Stenostoma*, regulation. **Child**, Ch. M. Arch. EntwMeek., Leipzig, **15**, 1902-1903, (187-237, 355-420, 603-637, mit 5 Taf.).

—— *turgidum*. **Zacharia**, O. Plön, ForschBer. biol. Stat., **10**, 1903, (223-289, 1 Taf.).

*Stylochus suesensis* Ehrenb.?, *S. zanzibaricus* n. sp. **Laidlaw**, F. F. London, Proc. Zool. Soc., **1903**, **2**, (105-106).

*Thyanozoon plehni* n. sp. **Laidlaw**, F. F. Fauna Mald. Laccad. Arch., **1**, (294-295).

*Vortex heluo* (*viridis* M.Sch.), Lebensweise, Symbiose. **Sakera**, E. Zool. Anz., Leipzig, **26**, 1903, (703-710).

*Bilharzia haematobia*, life-history. **Lazarus-Barlow**, W. S. and **Douglas**, J. J. Brit. Med. J., London, **1903**, **1**, (15).

—— *Petrie*, J. L. c. **2**, (133).

*Bunodera cornuta* n. sp. **Lake Chautauqua**. **Osborn**, H. L. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **5**, 1903, (63-73, with fig. in text).

*Cryptogonimus* n. gen., *C. chili* n. sp. **Osborn**, H. L. Zool. Anz., Leipzig, **26**, 1903, (315-318).

*Dicrogaster* n. gen., *D. perpusillus*, *D. contractus* nn. spp. **Loos**, A. Arch. parasit., Paris, **6**, 1902, (134-136, figs. 1-4).

*Didymocystis* n. gen. *D. reniformis*, *D. uedli*, *D. pretiosus* nn. spp. **Ariola**, V. L. c. (99-108).

*Didymozoon parassiti* del tonno. **Ariola**, V. L. c. (99-108, av. fig.).

*Distomum* nn. spp. **Linstow**, O. v. St. Petersburg, Ann. Mus. zool. Ac. Sc., **8**, 1903, (265-294, Taf. 17, 18, 19).

—— *cirrigerum* v. Baer, anatomy and development. **Warren**, E. Q. J. Microsc. Sci., London, (N. Ser.), **47**, 1903, (273-301, pls. XXIV-XXVI).

—— *contortum*, attacco e parasitismo. **Drago**, U. Catania, Atti Acc. Gioenia, (Ser. 4), **15**, (79, 1902), 1902, (4, con fig.). (Sunto.) Boll. Acc. Gioenia, (N. Ser.), **1903**, fasc. 74, (20).

—— *duplicatum*, Cercarie und Sporocyste. **Reuss**, H. Zs. wiss. Zool., Leipzig, **74**, 1903, (458-477, mit 1 Taf.).

—— *hepaticum*, das untere Schlundganglion. **Marcinowski**, K. Jenaische Zs. Natw., **37**, 1903, (544-550, mit 1 Taf.).

—— *lymphaticum* n. sp. **Linstow**, O. v. Centrallbl. Bakt., Jena, Abt. 1, **35**, Originale, 1903, (352-357).

—— (*Leucithodendrium*) *soma-teriae* Lev. giving rise to the formation of pearls in mussel shells. **Jameson**, H. L. Nature, London, **67**, 1903, (280-282, 3 figs.).

—— *spathulatum*. **Katsurada**, F. Beitr. path. Anat., Jena, **30**, 1901, (169-174).

—— Beitrag zur Kenntniss. **Yamagiwa**, K. L. c. (155-168).

## TREMATODA.

## GENERAL.

**Cohn**, L. Zur Kenntnis einiger Trematoden. Centrallbl. Bakt., Jena, Abt. 1, **34**, Originale, 1903, (35-42).

**Fischöder**, F. Die Paramphistomiden der Säugethiere. Zool. Jahrb., Jena, Abt. f. Syst., **17**, 1903, (485-660, mit 12 Taf.).

**Linstow**, O. v. Entozoa des zoologischen Museums der Kaiserlichen Akademie der Wissenschaften zu St. Petersburg. II. St. Petersburg, Ann. Mus. zool. Ac. Sc., **8**, 1903, (265-294, Taf. 17, 18, 19).

**Loos**, A. Die Distomenunterfamilie der *Haploporinae*. Arch. parasit., Paris, **6**, 1902, (128-143, av. fig.).

**MacLaren**, N. Ueber die Haut der Trematoden. Zool. Anz., Leipzig, **26**, 1903, (516-524).

**Réts**, I. Ueber wenig bekannte *Opisthorechiinae*. (Ungarisch) Allatt. Közlem., Budapest, **2**, 1903, (83-88, Taf. X).

**Senoo**, H. [*Cercariae*, found in *Paludina* and *Melania* in the district of Okayama.] (Japanese) Dobuts. Z., Tokyo, **15**, 1903, (307-311).

## SPECIAL.

*Amphistomum dolichocotyle* n. sp. **Cohn**, L. Centrallbl. Bakt., Jena, Abt. 1, **34**, Originale, 1903, (35-42).

*Echinostomum*, sp., sporocyst and cercaria. **Haswell**, W. A. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, **27**, (1902), 1903, (497-511).

—— *bursicola*, *E. cloacinum*. **Stiles**, C. W. Science, New York, N.Y., (N. Ser.), **13**, 1901, (593-594).

*Epidella producta* n. sp. **Linstow**, O. von. Centralbl. Bakt. Jena, Abt. 1, **35**, Originale, 1903, (352-357).

*Gasterostomum* sp., sporocyst and cercaria. **Haswell**, W. A. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, **27**, (1902), 1903, (511-513).

*Gyrodactylus elegans*, Beziehungen zwischen Chromatin und Nucleolen während der Furchung des Eies. **Janicki**, C. von. Zool. Anz., Leipzig, **26**, 1903, (241-245).

*Haploporus* n. gen., *H. lateralis* n. sp. **Loos**, A. Arch. parasit., Paris, **6**, 1902, (134, 136-139, figs. 5-8).

*Hoploderma* n. gen., *H. mesocoelium* n. sp. **Cohn**, L. Centralbl. Bakt., Jena, Abt. 1, **34**, Originale, 1903, (35-42).

*Lecithobotrys* n. gen., *L. putrescens* n. sp. **Loos**, A. Arch. parasit., Paris, **6**, 1902, (135-143, fig. 14).

*Lecithocladium* nn. spp. **Cohn**, L. Arch. Natg., Berlin, **69**, Bd 1, 1903, (47-68, mit 1 Taf.).

*Metorchis tener* n. sp. Pologne. **Kowalewski**, M. Kraków, Rozpr. Akad., B, **43**, 1903, (194-218, av. 3 tabl.); Bull. Intern. Acad., **1903**, (517).

*Monocaeum* n. gen., *M. baryurum* n. sp., Canadian Urodela. **Stafford**, J. Centralbl. Bakt., Jena, Abt. 1, **34**, Originale, 1903, (822-830, mit 1 Taf.).

*Ocrobathrium sagittatum*, ein Fall von perniziöser Anämie bei der Regenbogenforelle. **Hofer**, B. Allg. Fischereiztg., München, **28**, 1903, (38-39).

*Opisthorchis tenuicollis* Rud., Beschreibung, *Opisthorchis entri* n. sp. **Ráts**, I. Allatt. Közlem., Budapest, **2**, 1903, (83-88, Taf. X).

*Pegosomum* n. gen. verwandt mit *Echinostomum*, *P. saginatum* **Ráts**, *P. spiniferum* n. sp., *P. asperum* **Wright**, Beschreibung. **Ráts**, I. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., **1**, 1903, (417-432, Taf. XVI).

*Phyllodistomum americanum* n. sp. from *Amblystoma punctatum*. **Osborn**, H. L. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **4**, 1903, (252-258).

*Placunnella*. **Parona**, [C.] e **Monticelli**, [F.]. Mon. zool. ital., Firenze, **13**, 1902, (Supplemento), (46-48).

*Prostogonimus anatinus* n. sp. (Russ.). **Markov**, M. Charikov, Trd. Obsč. ispyt. prir., **37**, 1902, [1903], (287-294); Rés. fr. (295-291, av. 1 Tab.).

*Soccoelium* n. gen., *S. obesum* n. sp. **Loos**, A. Arch. parasit., Paris, **6**, 1902, (135, 140-142, figs. 9-13).

*Temnocephala chilensis*, *T. tumbesiana* n. sp. und *T. novae-zelandiae*. **Wacke**, R. Zool. Jahrb., Jena, Suppl. **6**, 1903, (1-116, mit 9 Taf.).

*Trechopus*. **Parona**, C. e **Monticelli**, F. S. Mon. zool. ital., Firenze, **13**, 1902, (Supplemento), (46-48).

## CESTODA.

### GENERAL.

**Black**, R. S. *Cysticercus cellulosae* causing insanity. J. mental Sci., London, **49**, 1903, (110-115).

**Blair**, W. R. *Cysticerci* in wild ruminants. New York, N.Y., Rep. Zool. Soc., **1902**, 1903, (137-144).

**Glere**, W. Contribution à l'étude de la faune helminthologique de l'Oural. Rev. Suisse Zool., Genève, **11**, 1903, (241-368, av. 4 pls. et 6 figs.).

**Dévé**, F. Inoculations échinococciques au cobaye. Paris, C.-R. soc. biol., **55**, 1903, (122-123).

—— Sur l'évolution kystique du scolex échinococcique. Arch. parasit., Paris, **6**, 1902, (54-81, av. 11 fig.).

**Fuhrmann**, O. L'évolution des ténias and en particulier de la larve des ichtyoténias. Arch. Sci. Phys., Genève, (ser. 4), **16**, 1903, (335-337).

**Gulart**, J. Parasitologie pratique: I. Le ver solitaire. Bul. sci. pharm., Paris, **5**, [t. 3, Pt. profess.], 1901, (17-22, 113-117, 223-227, av. 6 pls. et fig.); Parasites de l'intestin. l.c. **6**, 1902, (152-157, 199-208, av. fig.).

**Kholodkovsky**, N. Contribution à la connaissance des ténias des ruminants. Arch. parasit., Paris, **6**, 1902, (145-148, av. 1 fig.).

**Linstow, O. v.** Entozoa des zoologischen Museums der Kaiserlichen Akademie der Wissenschaften zu St. Petersburg II. St. Petersburg, Ann. Mus. zool. Ac. Sc., **8**, 1903, (265-294, Taf. 17, 18, 19).

**Lühe, M.** Eine nomenclatorische Berichtigung betr. die Cestoden-Gattung *Amphitretus* R. Bl. Centralbl. Bakt., Jena, Abt. 1, **33**, Originale, 1903, (608-609).

**Mingazzini, P.** Sull'esistenza di una secrezione emessa dalla superficie del corpo dei Cestodi adulti. Rassegna internazionale di medicina moderna, Catania, **3**, (1901), 1902.

**Sullivan, W. C.** *Cysticercus cellulosae* of the brain. J. mental Sci., London, **49**, 1903, (115-116).

**Zschokke, F.** Die arktischen Cestoden. Fauna Arctica, Jena, **3**, 1903, (1-32, mit 2 Taf.).

# SPECIAL.

*Acanthophallus* nom. nov. **Lühe, M.** Centralbl. Bakt., Jena, Abt. 1, **33**, Originale, 1903, (608-609).

*Acanthotaenia* n. gen., *A. shipleyi* n. sp. Ceylon. **Linstow, O. F. B.** von. l.c. (532-535).

*Anonchotaenia bobica* n. sp. in *Sitta uralensis*. **Clerc, W.** Rev. Suisse Zool., Genève, **11**, 1903, (343, pl. X, figs. 54, 56, 57).

*Aploparaksis* n. gen. for *A. filum*; *A. penetrans* n. sp. from *Tringa minuta*. **Clerc, W.** l.c. (271, pl. VIII, figs. 10, 18, 19).

*Bothriocephalus latus*. **Galli-Valerio, B.** Centralbl. Bakt., Jena, Abt. 1, **35**, Originale, 1903, (81-91).

Contribution à l'étude et distribution dans le canton de Vaud. **Schor, M.** Lausanne, Thèse méd. 1901-02, Lausanne, 1902, (29). 8vo.

tödliche Anämie durch. **Zinn, W. D.** med. Wochenschr., Berlin, **29**, 1903, (264-266).

(*Bothryotaenia*) *monorchis* n. sp. **Linstow, O.** von. Centralbl. Bakt., Jena, Abt. 1, **35**, Originale, 1903, (352-357).

*Bothriotaenia proboscidea* Batsch, Larven im Magen und Darm von Ostseeheringen (*Clupea harengus sembras* L.) **Schneider, G.** Berlin, SitzBer. Ges. natf. Freunde, **1902**, (28-30).

*Choanotaenia brevis* n. sp. in *Garrulus infaustus*. **Clerc, W.** Rev. Suisse Zool., Genève, **11**, 1903, (325, pl. IX, figs. 44-45).

*Crossobothrium laciniatum* and developmental stimuli in the Cestoda. **Curtis, W. C.** Wood's Holl, Mass., Mar. Biol. Lab. Bull., **5**, 1903, (125-142, with text fig.).

*Davainea* nn. spp. in *Buteo vulpinus* and *Tetrao tetrix*. **Clerc, W.** Rev. Suisse Zool., **11**, 1903, (359-363, pl. XI, fig. 79, 81, 82).

nn. spp. aus celebesischen Säugern. **Janicki, C.** von. Arch. parasit., Paris, **6**, 1902, (257-293, av. fig.).

*Dibothriocephalus römeri* n. sp. **Zschokke, F.** (Fauna Arctica, **3**) Jena, 1903, (1-32, mit 2 Taf.).

*Dilepis* nn. spp. in *Laurus canus* and *Tringa minuta*. **Clerc, W.** Rev. Suisse Zool., Genève, **11**, 1903, (337, 340, pl. X, figs. 48, 50, 52, 60, 70).

*Diorchis* n. gen., *D. acuminata* n. sp. from *Anas* spp. **Clerc, W.** l.c. (281, pl. IX, fig. 25, pl. XI, fig. 78).

*Diplocotyle cohaerens* n. sp. **Linstow, O. v.** St. Petersburg, Ann. Mus. zool. Ac. Sc., **8**, 1903, (265-291, Taf. 17, 18, 19).

*Diploposthe sui-generis* n. sp. Pologne, Galicie. **Kowalewski, M.** Kraków, Rozpr. Akad., B, **43**, 1903, (197-218, av. 3 pls.); Bull. Intern. Acad., **1903**, (518).

*Dipylidium edninum* (L.), ein neuer Fall beim Menschen. **Zschokke, F.** Centralbl. Bakt., Jena, Abt. 1, **34**, Originale, 1903, (42-43).

*Drepanidotaenia musculosa* n. sp. in *Meleagris gallopavo*. **Clerc, W.** Rev. Suisse Zool., Genève, **11**, 1903, (303, pl. VIII, figs. 17, 23, pl. IX, fig. 29).

*tenuirostris*, anatomy. **Rosseter, T. B.** London, J. Quek. Microsc. Cl., **8**, No. 52, 1903, (399-406, pl. XX).

*Echinocotyle uralensis* n. sp. in *Totanus hypoleucus*. **Clerc, W.** Rev. Suisse Zool., Genève, **11**, 1903, (315, pl. IX, figs. 28, 32, 34, 37, 39).



*Floricaps saccatus* dans le foie de l'*Orthogoriscus mola*. **Bossuat**, E. Arch. parasit., Paris, **6**, 1902, (161-206, av. 13 figs.).

*Gyrocotyle medusarum* n. sp. **Linstow**, O. von. Centralbl. Bakt., Jena, Abt. 1, **34**, Originale, 1903, (526-531).

*Hymenolepis* spp. **Ransom**, B. H. Lincoln, Stud. Zool. Lab., Univ. Nebr., No. **47**, 1902, (151-172, 3 pls.).

———— *nana*. **Stiles**, C. W. New York Medical Journal, New York, N.Y., **78**, 1903, (877-881).

*Monobothrium serpentum* n. sp. Siam. **Linstow**, [O.] von. Arch. mikr. Anat., Bonn, **62**, 1903, (119, fig. 21).

*Oochoristica surinamensis* n. sp. **Cohn**, L. Arch. Natg., Berlin, **69**, Bd. 1, 1903, (47-68).

*Taenia* nn. spp. **Linstow**, O. v. St. Petersburg, Ann. Mus. zool. Ac. Sc., **8**, 1903, (265-294, Taf. 17, 18, 19).

———— nn. spp. Ceylon. **Linstow**, [O. F. B.] von. Centralbl. Bakt., Jena, Abt. 1, **33**, Originale, 1903, (532-535).

———— *cerebralis*, *T. serialis*. **Kunsemüller**, F. Zool. Jahrb., Jena, Abt. f. Anat., **18**, 1903, (507-538, mit 4 Taf.).

———— *cucumerina* bei einem Kinde. **Asam**, W. Münchener med. Wochenschr., **50**, 1903, (334-335).

———— *echinococcus*, Vorkommen in der Schweiz. **Anschales-Wolownik**, B. Zürich Med. Diss., 1903-1904, Darmstadt, 1903, (16, 1 Taf.). 8vo.

———— **Jenckel**, A. [In: Pathologisch-anatomische Arbeiten, J. Orth gewidmet.] Berlin, 1903, (497-514).

———— **Manger**, B. Ueber einen Fall von Echinococcus hydatidosus der Leber und Milz. Diss. München (Druck v. Kastner & Callwey), 1903, (16). 22 cm.

———— **Ponomareff**, T. Recherches expérimentales sur la greffe des Echinocoques dans la cavité abdominale des lapins. Thèse Méd. (Lausanne). Lausanne (Guesse), 1903, (40). 8vo.

———— **Friessack**, A. Ein Fall von Alveolar-Echinococcus der

Leber. Diss. München (Druck v. Kastner & Lossen), 1902, (15). 22 cm.

*Taenia echinococcus*, Blutuntersuchung bei Hydatidencysten. **Sabrazès**, J. Münchener med. Wochenschr., **50**, 1903, (553-554).

———— *solum*. *Cysticercus cellulosae* im III. Ventrikel des Gehirns. **Winter**, B. Diss. Leipzig. Münster (Druck v. J. Bredt), 1901, (29). 20 cm.

*Tetrarhynchus notes*, *T. holothuriae* n. sp. Siam and Malay Peninsula. **Shipley**, A. E. London, Proc. Zool. Soc., **1903**, 2, (146-147, pl. XVI, figs. 5, 6 and 7).

*Thyranosoma pygargi* n. sp. **Kholodkovsky**, N. Arch. parasit., Paris, **6**, 1902, (145-148, av. 1 fig.).

## NEMERTINEA.

### GENERAL.

**Bergendal**, D. Bemerkungen über einige Angaben, den Bau des Kopfes einiger Heteronemertinen betreffend. Zool. Anz., Leipzig, **26**, 1903, (251-257).

———— Berichtigung [zu dem Aufsatz über d. Bau des Kopfes von Heteronemertinen. Zool. Anz., Bd. 26, S. 254 ff.] l. c. (438).

**Bürger**, Otto. Die Nemertinen. (Fauna Artica, **3**). Jena, 1903, (55-64, mit 1 Taf.).

———— Nemertini (Schnurwürmer). (H. G. Bronn's Klassen u. Ordnungen des Thier-Reichs, Bd. 4, Suppl., Lfg 18-22). Leipzig (C. F. Winter), 1903, (289-384, mit Taf.). 26 cm. 7.50 M.

### SPECIAL.

*Amphiporus* nn. spp. Norway. **Punnett**, R. C. Bergens Mus. Aarb., **1903**, No. 2, (29, 30, pl. I, figs. 9-12).

*Carinella ambigua* n. sp. Norway. **Punnett**, R. C. l. c. (8, pl. I, fig. 13).

*Carinoma armandi* „Sinnesgrüchen“ im Epithel des Vorderkopfes, nebst systematischen Bemerkungen über die Arten dieser Gattung. **Bergendal**, D. Zool. Anz., Leipzig, **26**, 1903, (608-619).

*Cerebratulus melanops* n. sp. Gulf of St. Lawrence. **Coe**, W. R. and **Kunkel**, B. W. Wood's Holl, Mass., Mar. Biol. Lab. Bull., 4, 1903, (119-124).

———— *norvegicus* n. sp. Norway. **Punnett**, R. C. Bergens Mus. Aarb., 1903, No. 2, (24, pl. I, fig. 6, pl. II, fig. 21).

*Eumertis nordgaardi* n. sp. Norway. **Punnett**, R. C. l.c. (27, pl. I, fig. 1-3).

*Lineus* nn. spp. Norway. **Punnett**, R. C. l.c. (13, 16, 17, pl. I, figs. 4-7, pl. II, figs. 19, 20).

*Micrura* nn. spp. Norway. **Punnett**, R. C. l.c. (19, 21, 22, pl. I, figs. 8, 14, pl. II, figs. 17, 18).

*Nemertopsis actinophila* n. sp. **Bürger**, O. Fauna Arctica, Jena, 3, 1903, (58, pl. III, figs. 1, 5-8).

## MESOZOA.

### DICYEMIDAE.

**Hartmann**, M. Die Fortpflanzungsweisen der Organismen, erläutert an Protozoen, Volvocineen und Dicyemiden (zugleich Mitteilung über den Generationswechsel der Dicyemiden). Hab. Schr. Giessen. Leipzig (G. Thieme), 1903, (43). 23 cm.

### Trichoplax.

*Trichoplax*. Morphogenetische Studien. **Garbowaki**, T. Jena (G. Fischer), 1903, (VIII + 189, mit 6 Taf.). 36 cm. 28 M.

## LIST OF NEW GENERA AND SPECIES.

*Acanthophallus* n. nom. [Cestoda]. Lühe. 63.

*Acanthotaenia* n. gen. [Cestoda]. Linstow. 61.  
———— *shipleyi*. Linstow. 61.

*Amelyplana* [Turbellaria].  
———— *kühenthali*. Mell. 70.

*Amphiporus* [Nemertinea].  
———— *magnus*. Punnett. 83.  
———— *pusillus*. Punnett. 83.

*Amphistomum* [Trematoda].  
———— *dolichocotyle*. Cohn. 21.

*Anonchotaenia* [Cestoda].

———— *bobica*. Clerc. 18.

*Aploparaksis* n. gen. [Cestoda]. Clerc. 18.

———— *penetrans*. Clerc. 18.

*Asthenoceros* n. gen. [Turbellaria]. Laidlaw. 48.

———— *woodicorthi*. Laidlaw. 48.

*Bergendalia* n. gen. [Turbellaria]. Laidlaw. 48.

———— *anomala*. Laidlaw. 48.

*Bipalium* [Turbellaria].

———— *brauni*. Mell. 70.

———— *grandidicri*. Mell. 70.

———— *jalorensis*. Laidlaw. 52.

———— *marenzelleri*. Mell. 70.

———— *tau*. Mell. 70.

*Bothriocephalus* [Cestoda].

———— *monorchis*. Linstow, von. 59.

*Bünodera* [Trematoda].

———— *cornuta*. Osborn. 77.

*Cabineilla* [Nemertinea].

———— *ambigua*. Punnett. 83.

*Cerebratulus* [Nemertinea].

———— *melanops*. Coe and Kunkel. 19.

———— *norvegicus*. Punnett. 83.

*Cestoplana* [Turbellaria].

———— *ceylonica*. Laidlaw. 49.

———— *filiformis*. Laidlaw. 53.

———— *maldivensis*. Laidlaw. 49.

*Choanotaenia* [Cestoda].

———— *brevis*. Clerc. 18. §

*Cryptogonimus* n. gen. [Trematoda]. Osborn. 75.

———— *chili*. Osborn. 75.

*Davainea* [Cestoda].

———— *celebensis*. Janicki, von. 40.

———— *polycalceola*. Janicki, von. 40.

———— *retusa*. Clerc. 18.

———— *sphaeroides*. Clerc. 18. §

*Dibothriocephalus* [Cestoda].

———— *römeri*. Zschokke. 116.

*Microgaster* n. gen. [Trematoda]. Loos. 62.

———— *contractus*. Loos. 62.

———— *perpusillus*. Loos. 62.

*Didymocystis* n. gen. [Trematoda].

———— *ariola*. 3.

———— *pretiosus*. Ariola. 3.

———— *reniformis*. Ariola. 3.

———— *redli*. Ariola. 3.

§ Also described in N 2, i, No. 7074.

- DILEPIS** [Cestoda].  
 ——— (?) *cylindrica*. Clerc. 18.  
 ——— *nymphoides*. Clerc. 18.
- Diorchis** n. gen. [Cestoda]. Clerc. 18.  
 ——— *acuminata*. Clerc. 18.
- DIPLOCOTYLE** [Cestoda].  
 ——— *cohaerens*. Linstow, v. 60.
- DIPLOPOSTHE** [Cestoda].  
 ——— *sui-generis*. Kowalewski. 45.
- Disparoplana** n. gen. [Turbellaria].  
 Laidlaw. 53.  
 ——— *dubia*. Laidlaw. 53.
- DISTOMUM** [Trematoda].  
 ——— *armatissimum*. Linstow, v. 60.  
 ——— *lymphaticum*. Linstow, von. 59.  
 ——— *reinhardi*. Linstow, v. 60.
- DREPANIDOTAENIA** [Cestoda].  
 § ——— *musculosa*. Clerc. 18.
- ECHINOCOTYLE** [Cestoda].  
 § ——— *uralensis*. Clerc. 18.
- EPIBELLA** [Trematoda].  
 ——— *producta*. Linstow, von. 59.
- EUNEMERTIS** [Nemertinea].  
 ——— *nordgaardii*. Punnett. 83.
- GYROCOTYLE** [Cestoda].  
 ——— *medusarum*. Linstow, von. 58.
- Haploplana** n. gen. [Turbellaria].  
 Laidlaw. 53.  
 ——— *elioti*. Laidlaw. 53.
- Haploporus** n. gen. [Trematoda]. Loos. 62.  
 ——— *lateralis*. Loos. 62.
- Hoploderma** n. gen. [Trematoda]. Cohn. 21.  
 ——— *menocelium*. Cohn. 21.
- LATOCESTUS** [Turbellaria].  
 ——— *argus*. Laidlaw. 48.
- Lecithobotrys** n. gen. [Trematoda].  
 Loos. 62.  
 ——— *putrescens*. Loos. 62.
- LECITHOCLADIUM** [Trematoda].  
 ——— *barbatum*. Cohn. 20.  
 ——— *excisiforme*. Cohn. 20.

§ Also described in N 2, i, No. 7074.

- LEPTOPLANA** [Turbellaria].  
 ——— *malayana*. Laidlaw. 48.  
 ——— *pardalis*. Laidlaw. 49.
- LINEUS** [Nemertinea].  
 ——— *cinereus*. Punnett. 83.  
 ——— *niteus*. Punnett. 83.  
 ——— *scandinaviensis*. Punnett. 83.
- METORCHIS** [Trematoda].  
 ——— *tener*. Kowalewski. 45.
- MICRURA** [Nemertinea].  
 ——— *atra*. Punnett. 83.  
 ——— *bergenicola*. Punnett. 83.  
 ——— *varicolor*. Punnett. 83.
- MONOBOTHRUM** [Cestoda].  
 ——— *serpentum*. Linstow, von. 56.
- Monocaecum** n. gen. [Trematoda].  
 Stafford. 100.  
 ——— *baryurum*. Stafford. 100.
- NEMERTOPSIS** [Nemertinea].  
 ——— *actinophila*. Bürger. 13.
- Notoplana** n. gen. [Turbellaria].  
 Laidlaw. 48.  
 ——— *cransii*. Laidlaw. 48.
- Ommatoplana** n. gen. [Turbellaria].  
 Laidlaw. 53.  
 ——— *tuberculata*. Laidlaw. 53.
- OOCHORISTICA** [Cestoda].  
 ——— *surinamensis*. Cohn. 20.
- OPISTORCHIS** [Trematoda].  
 ——— *entzi*. Rätz. 85.
- PARAPLANOCERA** [Turbellaria].  
 ——— *aurora*. Laidlaw. 53.
- Pegosomum** n. gen. [Trematoda]. Rätz. 86.  
 ——— *spiniferum*. Rätz. 86.
- PHYLLODISTOMUM** [Trematoda].  
 ——— *americanum*. Osborn. 76.
- Phylloplana** n. gen. [Turbellaria].  
 Laidlaw. 53.  
 ——— *lactea*. Laidlaw. 53.
- PLANARIA** [Turbellaria].  
 ——— *armata*. Zabusov. 112.  
 ——— *dybowskyi*. Zabusov. 112.  
 ——— *grubii*. Zabusov. 112.  
 ——— *sibirica*. Zabusov. 112.
- PLANOCERA** [Turbellaria].  
 ——— *armata*. Laidlaw. 49.  
 ——— *crosslandi*. Laidlaw. 53.  
 ——— *langii*. Laidlaw. 49.
- PROCOTYLA** [Turbellaria].  
 ——— *baicalensis*. Zabusov. 112.

- PROSTHIOSTOMUM** [Turbellaria].  
 — *cooperi*. Laidlaw. 49.  
 — *elegans*. Laidlaw. 49.  
 — *pallidum*. Laidlaw. 48.
- PROSTOGONIMUS** [Trematoda].  
 — *anatinus*. Markov. 67.
- PSEUDOCEROS** [Turbellaria].  
 — *bedfordi*. Laidlaw. 48.  
 — *collingwoodi*. Laidlaw. 48.  
 — *gamblei*. Laidlaw. 49.  
 — *gardineri*. Laidlaw. 49.  
 — *punctatus*. Laidlaw. 49.  
 — (?) *rubellus*. Laidlaw. 48.  
 — *tigrinus*. Laidlaw. 49.
- RHACEPHALUS** [Turbellaria].  
 — *punctatus*. Zabusov. 112.
- SEMONTIA** [Turbellaria].  
 — *penangensis*. Laidlaw. 48.
- SECCOCOELIUM** n. gen. [Trematoda].  
 — Loos. 62.  
 — *obesum*. Loos. 62.
- SOROCELIS** [Turbellaria].  
 — *fungiformis*. Zabusov. 112.  
 — *garajewi*. Zabusov. 112.  
 — *leucocephala*. Zabusov. 112.  
 — *lineata*. Zabusov. 112.
- STYLOCHUS** [Turbellaria].  
 — *zanzibarius*. Laidlaw. 53.
- TAENIA** [Cestoda].  
 — *dahurica*. Linstow, v. 60.  
 — *hominis*. Linstow, v. 60.  
 — *hoplites*. Linstow, v. 60.  
 — *laticollis*. Linstow, v. 60.  
 — *maeander*. Linstow. 61.  
 — *polycalcaria*. Linstow. 61.  
 — *retracta*. Linstow, v. 60.
- TEMNOCEPHALA** [Trematoda].  
 § — *tumbesiana*. Wacke. 40.
- TETRAHYNCHUS** [Cestoda].  
 — *holothuriae*. Shipley. 97.
- THYANZOON** [Turbellaria].  
 — *plehni*. Laidlaw. 49.
- THYBANOSOMA** [Cestoda].  
 — *pygargi*. Kholodkovsky. 44.

## 1403-1431.

## NEMATHELMINTHES.

## TITLES.

**Augener, Hermann.** Beiträge zur Kenntnis der Gephyreen nach Untersuchung der im Göttinger Zoologischen

Museum befindlichen Sipunculiden und Echiuriden. Arch. Natg., Berlin, **69**, Bd. 1, 1903, (297-371, mit 5 Taf.). [1831 1807 1431 2631 2619]. 1

**Bonnet, A. v. Conte, A.**

**Benjamins, C. E.** *Anchylostomum duodenale* in Semarang und Umgegend. (Holländisch) Batavia, Geneesk Tijdschr. Ned. Ind., **43**, 1903, (828-835). [1419 1431]. 2

**Brown, A. A.** Animal parasites. Nematodes or round worms. (*Strongylus filaria*, *Sclerostoma syngamus*). Vict. Journ. Dep. Agric., Melbourne, **2**, 1903, (72-74, 174-76). [1419 1431]. 3

**Bruce, D.** The nomenclature of malaria. Brit. Med. J., **1903**, 1, (15). [0403 0070 1431]. 4

**Bruns, Hayo.** Die Gefahr der Infektion mit *Ankylostoma duodenale* im Grubenbetrieb. Münchener med. Wochenschr., **50**, 1903, (474-476, 693). [1403 1431]. 5

**Camerano, Lorenzo.** Gordiens nouveaux ou peu connus du Musée Zoologique de l'Académie Imp. d. Sc. de St. Pétersbourg II. St. Peterburg, Ann. Mus. zool. Ac. Sc., **8**, 1903, (22-29). [1431]. 6

**Castellani v. Christie.**

**Christie, Low and Castellani.** Sleeping sickness in Africa. [*Filaria perstans* shown not to be the cause]. Nature, London, **67**, 1903, (159). [1431 1403]. 7

**Conte, A. et Bonnet, A.** Sur un nématode nouveau (*Angiostoma heliceis* n. sp.), parasite de l'appareil génital d'*Helix aspersa* Muell. Paris, C.-R. soc. biol., **55**, 1903, (198-199). [1419 1431 2219 2231]. 8

**Cooke, J. H.** Filariasis amongst the Baganda. J. trop. Med., London, **1902**, (245-248). [1403]. 9

**Daday, Jenő.** Mikroskopische Süsswasserthiere aus Turkestan. (Hung.) Math. Term. Ert., Budapest, **21**, 1903, (324-357). [0027 ei 1431 2631 3031]. 10

**Dehnel, Jan.** Contribution à la casuistique médico-légale. (Polonais) Medyc., Warszawa, **31**, 1903, (805-809). [1403]. 11

**Elliot, J. H.** A preliminary note on the occurrence of a filaria in the crow [*Corvus*]. Wood's Holl, Mass., Mar.

§ Also described in N 2, i, No. 12590.

Biol. Lab. Bull., 4, 1903, (64-65). [1419 1431 5831]. 12

**Freyssinge, L. et Neveu-Lemaire, M.** Rôle des moustiques dans la propagation de la filariose et de la fièvre jaune. Bul. sci. pharm., Paris, 3, 1901, (81-92, av. fig.). [1419 1431 4219 4231]. 13

**Fülleborn.** *Anquillula intestinalis*. Münchener med. Wochenschr., 50, 1903, (39-40). [1431]. 14

**Galli-Valerio, Bruno.** Notes de parasitologie. Centralbl. Bakt., Jena, Abt. 1, 35, Originale, 1903, (81-91). [0219 0419 0431 1219 1231 1419 1431 4219]. 15

— Sur un cas d'appendicite avec *Oxyuris vermicularis* L. et *Trichocephalus trichiurus* L. Centralbl. Bakt., Jena, Abt. 1, 35, Originale, 1903, (350-355). [1403 1431]. 16

**Goldschmidt, Richard.** Histologische Untersuchungen an Nematoden. I. Die Sinnesorgane von *Aecaris lumbricoides* L. und *A. megalocephala* Cloqu. Zool. Jahrb., Jena, Abt. f. Anat., 18, 1903, (1-57, mit 5 Taf.). [1407 1431]. 17

**Golevin, J.** Ueber die phagocytären Zellen von *Heterakis perspicillum* Rud. (Russ.) Kazan, Zap. Univ., 70, XII, 1903, (119-132, Taf. 1). [1411 1431]. 18

**Graybill, H. W.** Some points on the structure of the Acanthocephala. [With bibliography]. Lincoln, Stud. Zool. Lab., Univ. Nebr., No. 49, 1902, (191-200, 1 pl.). [1407 1431]. 19

**Haldane.** Anaemia caused by *Ankylostomum duodenale* in Cornwall. Nature, London, 67, 1903, (88). [1419 1431]. 20

**Johns, A[lf.].** Der Trichinenschauer. Leitfaden für den Unterricht in der Trichinenschau und für die mit der Kontrolle und Nachprüfung der Trichinenschauer beauftragten Veterinär- und Medizinalbeamten. 8. umgearb. Aufl. Berlin (P. Parey), 1903, (XII + 183). 23 cm. Geb. 3,50 M. [1403 1431]. 21

**Jungner, J. R.** Fritfliege und Stockälchen. Vorläuf. Mitteilung. Zs. Pflanzenkrankh., Stuttgart, 13, 1903, (45-46). [1431]. 21a

**Konstantinovič, M.** Die Wurzelnematode nach persönlichen Beobachtungen

von M. Konstantinovič, Besitzer eines Obstgartens in Moskau. (Russ.) St. Petersburg, 1903, (23, mit 8 figs.). [1419]. 22

**Kowalewski, Mieczysław.** Etudes helminthologiques. VII. (Polonais) Kraków, Rozpr. Akad., B, 43, 1903, (194-218, av. 3 pls.); Bull. Intern. Acad., 1903, (517-519, av. 3 pls.) [1203 1231 1403 1431]. 23

**Kulwiec, Kazimierz.** [Parasites des insectes]. (Polonais) Wszeczwiat, Warszawa, 22, 1903, (213-217, 246-249). [4619 4819 1419 3019]. 24

**Linstow, [Otto] von.** Helminthologische Beobachtungen. Centralbl. Bakt., Jena, Abt. 1, 34, Originale, 1903, (526-531). [1203 1231 1431]. 25

— Neue Helminthen. Centralbl. Bakt., Jena, Abt. 1, 35, Originale, 1903, (352-357). [1231 1431]. 26

— Bericht über die wissenschaftlichen Leistungen in der Naturgeschichte der Helminthen im Jahre 1897, 1898, 1899. Arch. Natg., Berlin, 62, Bd. 2, H. 3, 1896 [1903], (1-128). [1203 1403]. 27

— Parasiten, meistens Helminthen, aus Siam. Arch. mikr. Anat., Bonn, 62, 1903, (108-121, mit 1 Taf.). [1427 ee 1431 1227 ee 1231 0427 ee 0431]. 28

— Entozoa des Zoologischen Museums der Kaiserlichen Akademie der Wissenschaften zu St. Petersburg. II. St. Petersburg, Ann. Mus. zool. Ac. Sc., 8, 1903, (265-294, Taf. 17, 18, 19). [1231 1431]. 29

— *Dorylaimus atratus* n. sp. Genova, Boll. Musei Zool. anat. comp., 1901, N. 109, (2, con fig.). [1431]. 30

**Long-Preusse.** Praktische Anleitung zur Trichinenschau. 4. Aufl. bearb. v. M. Preusse. Berlin (R. Schoetz), 1903, (IV + 65). 22 cm. 2,50 M. [1403 1431]. 31

**Looss, A[rthur].** Weiteres über die Einwanderung der Ankylostomen von der Haut aus. Centralbl. Bakt., Jena, Abt. 1, 33, Originale, 1903, (330-343). [1419 1431]. 32

**Low, (C. C.)** *Filaria perstans*. Brit. Med. J., London, 1903, 1, (722-724, figs. 1 and 2). [1431]. 33

— v. Christie.

**Manson, P.** The life-span of *Filaria medinensis*. Brit. Med. J., London, 1903, 2, (10). [1419 1431]. 34

**Martini, E.** Zur Geschichte der intrauterinen Entwicklung des *Cucullanus elegans* Zed. Zool. Anz., Leipzig, 26, 1903, (531-532). [1415 1431]. 35

Ueber Furchung und Gas-trulation bei *Cucullanus elegans* Zed. Zs. wiss. Zool., Leipzig, 74, 1903, (501-556, mit 3 Taf.). [1415 1431]. 36

**Marval, L. de.** Les échinorhynques. Arch. Sci. Phys., Genève, (sér. 4), 14, 1902, (181-183). [1407 1431]. 37

**Matthes, M[ax].** Trichinosis. [In: Lehrbuch der Inneren Medizin, hrsg. v. J. v. Mering. 2. umgearb. Aufl.] Jena, 1903, (497-501). [1403 1431]. 38

**Meer, J. F.** Die Verbreitung der Anchylostomiasis im Archipel. (Holländisch) Batavia, Genesck. Tijdschr. Ned. Ind., 43, 1903, (813-817). [1419 1431]. 39

**Merkel, G[ottl].** Behandlung der Trichinenkrankheit. [In: Handbuch der Therapie innerer Krankheiten, Bd 1.] Jena, 1902, (554-569). [1403 1431]. 40

**Metcalf, Haven.** Cultural studies of a Nematode [*Rhabditis brevispina*] with plant decay. Lincoln, Stud. Zool. Lab., Univ. Neb., No. 54, 1903, (35-48, with 1 pl.). Separate. 23.3 cm. [1431]. 41

**Mokraczek, S. A.** Verzeichnis der Insecten und anderer wirbelloser Thiere, welche im europäischen Russland und in Kaukasus an Weinreben gefunden wurden. (Russ.) Ausg d. Minist. d. Landwirtschaft u. d. Staatsdomänen. St. Petersburg, 1903, (39). 23 cm. [1419 2419 2427]. 42

**Montgomery, Thomas H[arrison].** jun. The identity of the Gordiacean species, *Chordodes morgani* and *C. puerilis*. Philadelphia, Pa., Proc. Acad. Nat. Sci., 53, 1901, (289-292, with pl.); [reprint], Philadelphia, Cont. Zool. Lab., Univ. Pa., 1901, 1902, (289-292, with pl.). [1431]. 43

The adult organisation of *Paragordius varius* (Leidy). Zool. Jahrb., Jena, Abt. f. Anat., 18, 1903, (387-474, mit 7 Taf.). [1431 1407] 44

**Müller, Hermann.** Beitrag zur Embryonalentwicklung der *Ascaris mega-*

*locephala*. Zoologica, Stuttgart, H. 41 (= Bd 17, Lfg 3. 4), 1903, (1-30, mit 5 Taf.). [1415 1431]. 45

**Neuhaus, Carl.** Die postembryonale Entwicklung der *Rhabditis nigrovirens*. Jenaische Zs. Natw., 37, 1903, (653-690, mit 3 Taf.). [1415 1431]. 46

**Neveu-Lemaire, M. v. Freyssinge, L.**

Olt. Das Schmarotzerleben des bewaffneten Palissadenwurmes—*Strongylus armatus*—und seine Beziehungen zur Kolik der Pferde. D. landw. Tierzucht, Leipzig, 5, 1901, (31-33). [1431 1419]. 47

**Ossipow, N.** Ueber histologische Veränderungen in Spätstadien der Muskeltrichinose. Beitr. path. Anat., Jena, 34, 1903, (253-268, mit 2 Taf.). [1431]. 48

**Parona, C. e Stossich, M.** *Oesophagostomum tuberculatum* n. sp. parasita dei *Dasypus*. Genova, Boll. Musei Zool. anat. comp., 1901, N. 110, (3, con fig.). [1431]. 49

**Pieri, G.** Sur le mode de transmission de l'Anchylostoma duodenale. Arch. ital. biol., Paris, Torino, 37, 1902, (269-273); Roma, Rend. Acc. Lincei, (Ser. 5), 11, (1<sup>o</sup> sem.), 1902, (217-220). [1419 1431]. 50

Kurze Erwiderung auf Herrn Dr. Looss' Mitteilung: Weiteres über die Einwanderung der Ankylostomen von der Haut aus. Uebersetzt von M. K. Centralbl. Bakt., Jena, Abt. 1, 34, Originale, 1903, (531-535). [1431 1419]. 51

**Powell, A.** A species of blood *Filaria*, probably hitherto undescribed. Brit. Med. J., London, 1903, 1, (1145). [1419 1427 ef 1431]. 52

**Primrose, A.** Filariasis in man cured by removal of the adult worms in an operation for lymph scrotum. Brit. Med. J., London, 1903, 2, (1262-1265, 5 figs.). [1403 1431]. 53

**Ritter, Adolf v. Weinland, Ernst.**

**Ritzema Bos, [Jan].** Drei bis jetzt unbekannte, von *Tylenchus devastatrix* verursachte Pflanzenkrankheiten. Zs. Pflanzenkrankh., Stuttgart, 13, 1903, (193-198). [1419 1431]. 54

**Rizzo, Agostino.** La fauna elmintologica dei rettili nella provincia di Catania. Arch. parasit., Paris, 6, 1902, (26-41). [1227 dh 1231 1427 dh 1431 5619]. 55

**Bouville**, Etienne de. Revision des Nématodes libres, marins, de la région de Cette. Paris, C.-R. Acad. sci., **137**, 1903, (1002–1003). [1427 1431]. 56

**Sambon**, L. W. Remarks on the life-history of *Filaria bancrofti* and *Filaria immitis*. Lancet, London, **163**, 1902, (422–426). [1419 1431]. 57

**Shipley**, A. E. On the ento-parasites collected by the "Skeat Expedition" to Lower Siam and the Malay Peninsula in the years 1899–1900. London, Proc. Zool. Soc., **1903**, 2, (145–156, pl. XVI). [0419 0427 eg 1431 1227 ef 1427 eg ee 1231]. 58.

**Skorikov**, A. S. Zur Parasitologie der Störe. (Russ.) Věst. rybopromysl., St. Petersburg, **1903**, 18, (83–82). [0819 1219 1419 5419]. 59

**Sticker**, Anton. Untersuchungen über den Bau und die Lebensgeschichte des *Sclerostomum armatum*. Arch. Thierheilk., Berlin, **27**, 1901, (187–232, mit 1 Taf.). [1431 1407]. 60

**Stiles**, Ch. Wardell. Report upon the prevalence and geographic distribution of hookworm disease (uncinariasis or anchylostomiasis) in the United States. (Second edition). Washington, D.C., Treasury Dept., Pub. Hlth. Mar. Hosp. Serv. Hyg. Lab. Bull. No. **10**, 1903, (122). 23 cm. [1427 gf hh 1431]. 61

**Stossich**, M. v. Parona, C.

**Tenholt**, [August]. Die Ankylostomiasis-Frage. Zusammenfassende Uebersicht. Centralbl. Bakt., Jena, Abt. 1, **34**, Referate, 1903, (1–10, 33–50). [1431]. 62

Die Gefahr der Infektion mit *Ankylostoma duodenale* im Grubenbetrieb. Münchener med. Wochenschr., **50**, 1903, (563–564). [1431]. 63

**Türk**, Fritz. Ueber einige im Golfe von Neapel frei lebende Nematoden. Mitt. zool. Stat. Neapel, Berlin, **16**, 1903, (281–348, mit 2 Taf.). [1431 1407]. 64

**Vysotskij**, N. *Filaria papillosa* auf der serösen Hülle der Leber und Pigmentablagerungen auf der serösen Hülle des Darmes beim Pferde. (Russ.) Arch. veterin. nauk, St. Petersburg, **1903**, 12, (1046–1047). [1419 1431 6019]. 65

**Weinland**, Ernst. Ueber ausgepresste Extrakte von *Ascaris lumbricoides* und ihre [gährende] Wirkung. Zs. Biol., München, **43**, 1902, (86–111). [1411 1431]. 66

Ueber die von *Ascaris lumbricoides* ausgeschiedene Fettsäure. Zs. Biol., München, **45**, 1903, (113–116). [1431 1411]. 67

und **Ritter**, Adolf. Ueber die Bildung von Glykogen aus Kohlehydraten bei *Ascaris*. Zs. Biol., München, **43**, 1902, (490–502). [1411 1431]. 68

**Whittles**, D. J. A case of general infection by a Nematode, accompanied by hypertrophic gingivitis. Lancet, London, **164**, 1903, (1435–1437, 6 figs.); **165**, 1903, (57). [1403]. 69

**Wilfarth**, H. und **Wimmer**, G. (Ref.) Untersuchungen über die Wirkung der Nematoden auf Ertrag und Zusammensetzung der Zuckerrüben. Berlin, Zs. Ver. D. Zuckerind., **53**, 1903, Techn. Tl. (1–41). [1419]. 70

**Wimmer**, G. v. Wilfarth, H.

**Zschokke**, [Friedrich]. Fauna helvetica. Heft 8. Parasitische Würmer. Bibliographie der schweizerischen Landeskunde. Fascikel IV 6. Bern, (K. J. Wyss,) 1902, (IV + XII + 39). 8vo. [0030 1227 di 1231 1427 di 1431]. 71

## 1403 COMPREHENSIVE AND GENERAL WORKS.

### GENERAL

**Kowalewski**, Mieczysław. Études helminthologiques. VII (Polonais) Kraków, Rozpr. Akad., B, **43**, 1903, (194–218, av. 3 pls.); Bull. Intern. Acad., **1903**, (517–519, av. 3 figs.).

**Linstow**, [Otto] von. Bericht über die wissenschaftlichen Leistungen in der Naturgeschichte der Helminthen im Jahre 1897, 1898, 1899. Arch. Natg., Berlin, **62**, Bd 2, H. 3, 1896, [1903], (1–128).

### MEDICAL

**Bruns**, Hayo. Die Gefahr der Infektion mit *Ankylostoma duodenale* im Grubenbetrieb. Münchener med. Wochenschr., **50**, 1903, (474–476, 693).

**Christie, Low and Castellani.** Sleeping sickness in Africa. [*Filaria perstans* shown not to be the cause.] *Nature*, London, **67**, 1903, (159).

**Cooke, J. H.** Filariasis amongst the Baganda. *J. trop. Med.*, London, **1902**, (245-248).

**Dehnel, J.** Contribution à la casuistique médico-légale. (Polonais) *Medyc.*, Warszawa, **31**, 1903, (805-809).

**Galli-Valerio, Bruno.** Sur un cas d'appendicite avec *Oxyuris vermicularis* L. et *Trichocephalus trichiurus* L. *Centralbl. Bakt.*, Jena, Abt. 1, **35**, Originale, 1903, (350-355).

**Johns, A[th].** Der Trichinenschauer. Leitfaden für den Unterricht in der Trichinenschau und für die mit der Kontrolle und Nachprüfung der Trichinenschauer beauftragten Veterinär- und Medizinalbeamten. 8. umgearb. Aufl. Berlin (P. Parey), 1903, (XII + 183). 23 cm. Geb. 3,50 M.

**Long-Preusse.** Praktische Anleitung zur Trichinenschau. 4. Aufl. bearb. v. M. Preusse. Berlin (R. Schoetz), 1903, (IV + 65). 22 cm. 2,50 M.

**Matthes, M[ax].** Trichinosis. [In: *Lehrbuch der inneren Medizin*, hrsg. v. J. v. Mering. 2. umgearb. Aufl.] Jena, 1903, (497-501).

**Merkel, G[ottl].** Behandlung der Trichinenkrankheit. [In: *Handbuch der Therapie innerer Krankheiten*, Bd 1.] Jena, 1902, (554-569).

**Primrose, A.** Filariasis in man cured by removal of the adult worms in an operation for lymph scrotum. *Brit. Med. J.*, London, **1903**, 2, (1262-1265, 5 figs.).

**Whittles, D. J.** A case of general infection by a Nematode, accompanied by hypertrophic gingivitis. *Lancet*, London, **1903**, (1435-1437, 6 figs.); **1903**, (57).

## 1407 STRUCTURE.

### GENERAL.

**Graybill, H. W.** Some points on the structure of the Acanthocephala. [With bibliography.] *Lincoln, Stud. Zool. Lab.*, Univ. Nebr., No. **49**, 1902, (191-200, 1 pl.).

(N 2-9053)

**Marval, L. de.** Les échinorhynques. *Arch. Sci. Phys.*, Genève, (sér. 4), **14**, 1902, (181-183).

**Montgomery, Tho[mas] H., jun.** The adult organisation of *Paragordius varius* (Leidy). *Zool. Jahrb.*, Jena, Abt. f. Anat., **18**, 1903, (387-474, mit 7 Taf.).

**Sticker, Anton.** Untersuchungen über den Bau und die Lebensgeschichte des *Sclerostomum armatum*. *Arch. Tierheilk.*, Berlin, **27**, 1901, (187-232, mit 1 Taf.).

**Türk, Fritz.** Ueber einige im Golfe von Neapel frei lebende Nematoden. *Mitt. zool. Stat. Neapel*, Berlin, **16**, 1903, (281-348, mit 2 Taf.). [1431].

### SENSE ORGANS.

**Goldschmidt, Richard.** Histologische Untersuchungen an Nematoden. I. Die Sinnesorgane von *Ascaris lumbricoides* L. und *A. megalocephala* Cloqu. *Zool. Jahrb.*, Jena, Abt. f. Anat., **18**, 1903, (1-57, mit 5 Taf.).

## 1411 PHYSIOLOGY.

### FUNCTION OF SPECIAL STRUCTURES.

**Golovin, J.** Ueber die phagocytären Zellen von *Heterakis perspicillum* Rad. (Russ.) *Kazani, Zap. Univ.*, **70**, XII, 1903, (119-132, Taf. I).

### CHEMICAL PHYSIOLOGY.

**Weinland, Ernst.** Ueber ausgepresste Extrakte von *Ascaris lumbricoides* und ihre [gährende] Wirkung. *Zs. Biol.*, München, **43**, 1902, (86-111).

Ueber die von *Ascaris lumbricoides* ausgeschiedene Fettsäure. *l.c.* **45**, 1903, (113-116).

und **Ritter, Adolf.** Ueber die Bildung von Glykogen aus Kohlehydraten bei *Ascaris*. *l.c.* **43**, 1902, (490-502).

## 1415 DEVELOPMENT.

### EMBRYOLOGY.

**Martini, E.** Zur Geschichte der intrauterinen Entwicklung des *Cucullanus elegans* Zed. *Zool. Anz.*, Leipzig, **26**, 1903, (531-532).



**Martini, E.** Ueber Furchung und Gastrulation bei *Cucullanus elegans* Zed. Zs. wiss. Zool., Leipzig, **74**, 1903, (501–556, mit 3 Taf.).

**Müller, Hermann.** Beitrag zur Embryonalentwicklung der *Ascaris megalocephala*. Zoologica, Stuttgart, H. **41** (= Bd 17, Lfg 3. 4), 1903, (1–30, mit 5 Taf.).

#### POSTEMBRYONIC ONTOGENY.

**Neuhaus, Carl.** Die postembryonale Entwicklung der *Rhabditis nigrovirens*. Jenaische Zs. Natw., **37**, 1903, (653–690, mit 3 Taf.).

#### 1419 ETHOLOGY.

##### GENERAL.

**Manson, P.** The life-span of *Filaria medinensis*. Brit. Med. J., London, **1903**, 2, (10).

##### HABITS.

**Konstantinovič, M.** Die Wurzelnematode nach persönlichen Beobachtungen von M. Konstantinovič, Besitzer eines Obstatgartens in Moskau. (Russ.) St. Petersburg, 1903, (23, mit 8 Fig.). 24 cm.

**Mokříček, S. A.** Verzeichnis der Insecten und anderer wirbelloser Thiere, welche im europäischen Russland und im Kaukasus an Weinreben gefunden wurden. (Russ.) Ausg. d. Minist. d. Landwirthsch. u. d. Staatsdom., St. Petersburg, 1903, (39). 23 cm.

##### PARASITISM.

**Benjamins, C. E.** . . . *Ankylostomum duodenale* in Semarang und Umgegend. (Holländisch) Batavia, Geneesk. Tijdschr. Ned. Ind., **43**, 1903, (828–835).

**Brown, A. A.** Animal parasites, Nematodes or round worms. (*Strongylus filaria*, *Sclerosstoma syngamus*). Vict. Journ. Dep. Agric., Melbourne, **2**, 1903, (72–74, 174–176).

**Conte, A. et Bonnet, A.** Sur un nématode nouveau (*Angiostoma heliciis* n. sp.), parasite de l'appareil génital

d'*Helix aspersa* Muell. Paris, C.-R. soc. biol., **55**, 1903, (198–199).

**Elliot, J. H.** A preliminary note on the occurrence of a filaria in the crow [*Corvus*]. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **4**, 1903, (64–65).

**Freysing, L. et Neveu-Lemaire, M.** Rôle des moustiques dans la propagation de la filariose et de la fièvre jaune. Bul. sci. pharm., Paris, **3**, 1901, (81–92, av. fig.).

**Galli-Valerio, Bruno.** Notes de parasitologie. Centralbl. Bakt., Jena, Abt. 1, **35**, Originale, 1903, (81–91).

**Haldane.** Anaemia caused by *Ankylostomum duodenale* in Cornwall. Nature, London, **67**, 1903, (88).

**Kulwić, K.** Parasites des insectes. (Polonais) Wszczęświat, Warszawa, **22**, 1903, (213–217, 246–240).

**Looss, Arthur.** Weiteres über die Einwanderung der Ankylostomen von der Haut aus. Centralbl. Bakt., Jena, Abt. 1, **33**, Originale, 1903, (330–343).

**Meer, J. F. van der.** Anchylostomiasis in [malayischen] Archipel. (Holländisch) Batavia, Geneesk. Tijdschr. Ned. Ind., **43**, 1903, (813–817).

**Olt.** Das Schmarotzerleben des bewaffneten Palissadenwurmes — *Strongylus armatus* — und seine Beziehungen zur Kolik der Pferde. D. landw. Tierzucht, Leipzig, **5**, 1901, (31–33).

**Pieri, G.** Sur le mode de transmission de l'*Ankylostoma duodenale*. Arch. ital. biol., Paris, Torino, **37**, 1902, (269–273); Roma, Rend. Acc. Lincei, (Ser. 5), **11**, (1<sup>o</sup> sem.), 1902, (217–220).

—— Kurze Erwiderung auf Herrn Dr. Looss' Mitteilung: Weiteres über die Einwanderung der Ankylostomen von der Haut aus. Uebersetzt von M. K. Centralbl. Bakt., Jena, Abt. 1, **34**, Originale, 1903, (531–535).

**Powell, A.** A species of blood *Filaria*, probably hitherto undescribed. Brit. Med. J., London, **1903**, 1, (1145).

**Sambon, L. W.** Remarks on the life-history of *Filaria bancrofti* and *Filaria immitis*. Lancet, London, **163**, 1902, (422–426).

**Skorikov, Aleksandr [S]tepanovič.** Zur Parasitologie der Störe. (Russ.) Věst. rybopromysl., St. Petersburg, **1903**, 18, (63–82).

**Vysotskij, N.** *Filaria papillosa* auf der serösen Hülle der Leber und Pigmentablagerungen auf der serösen Hülle des Darmes beim Pferde. (Russ). Arch. veterin. nauk, St. Peterburg, 1902, 12, (1046-1047).

#### UTILITY AND HARMFULNESS.

**Ritzema Bos, [Jan].** Drei bis jetzt unbekannte, von *Tylenchus devastatrix* verursachte Pflanzenkrankheiten. Zs. Pflanzenkrankh., Stuttgart, 13, 1903, (193-198).

**Wilfarth, H. und Wimmer, G.** (Ref.) Untersuchungen über die Wirkung der Nematoden auf Ertrag und Zusammensetzung der Zuckerrüben. Berlin, Zs. Ver. D. Zuckerind., 53, 1903, Techn. TL, (1-41).

#### 1427 GEOGRAPHICAL DISTRIBUTION.

*d* EUROPE.

*df* FRANCE.

**Rouville, Etienne de.** Revision des Nématodes libres, marins, de la région de Cette. Paris, C.-R. Acad. sci., 137, 1903, (1002-1003).

*dh* ITALY.

**Rizzo, Agostino.** La fauna elmintologica dei rettili nella provincia di Catania. Arch. parasit., Paris, 6, 1902, (26-41).

*di* SWITZERLAND.

**Zschokke, [Friedrich].** Fauna helvetica. Heft 8: Parasitische Würmer.—Bibliographie der schweizerischen Landeskunde. Fascikel IV 6. Bern (K. J. Wyss), 1902, (IV + XII + 39). 8vo.

*e* ASIA.

*ee* SIAM.

**Linatow, [Otto] von.** Parasiten, meistens Helminthen, aus Siam. Arch. mikr. Anat., Bonn, 62, 1903, (108-121, mit 1 Taf.).

(N 2-9053)

**Shipley, A. E.** On the ento-parasites collected by the "Skeat Expedition" to Lower Siam and the Malay Peninsula in the years 1899-1900. London, Proc. Zool. Soc., 1903, 2, (145-156, pl. XVI).

*ef* BRITISH INDIA.

**Powell, A.** A species of blood *Filaria*, probably hitherto undescribed. Brit. Med. J., London, 1903, 1, (1145).

*eg* MALAY PENINSULA.

**Shipley, A. E.** On the ento-parasites collected by the "Skeat Expedition" to Lower Siam and the Malay Peninsula in the years 1899-1900. London, Proc. Zool. Soc., 1903, 2, (145-156, pl. XVI).

*g* NORTH AMERICA.

*gf* UNITED STATES.

**Stiles, Ch. Wardell.** Report upon the prevalence and geographic distribution of hookworm disease (uncinariasis or ancylostomiasis) in the United States. (Second edition.) Washington, D.C., Treasury Dept., Pub. Hlth. Mar. Hosp. Serv. Hyg. Lab. Bull., No. 10, 1903, (122). 23 cm.

#### 1431 TAXONOMY AND SYSTEMATIC.

##### GENERAL.

**Jungner, J. R.** Fritfliege und Stockälchen. Vorläuf. Mitteilung. Zs. Pflanzenkrankh., Stuttgart, 13, 1903, (45-46).

**Rizzo, A.** La fauna elmintologica dei rettili nella provincia di Catania. Arch. parasit., Paris, 6, 1902, (26-41).

**Zschokke, F.** Fauna helvetica Heft 8: Parasitische Würmer. Bibliographie der schweizerischen Landeskunde. Fasc. IV, 6. Bern (K. J. Wyss), 1902, (IV + XII + 39). 8vo.

##### NEMATODA.

##### GENERAL.

**Bruce, D.** Nomenclature of malaria; a suggestion. Lancet, London, 1903, 1, (131-132); Brit. Med. J., London, 1903, 1, (15).

**Freyssinge, L. et Neveu-Lemaire, M.** Rôle des moustiques dans la propagation de la filariose et de la fièvre jaune. *Bul. sci. pharm., Paris*, **3**, 1901, (81-92, av. fig.).

**Linstow, O. v.** Entozoa des zoologischen Museums der Kaiserlichen Akademie der Wissenschaften zu St. Petersburg. II. St. Petersburg, *Ann. Mus. zool. Ac. Sc.*, **8**, 1903, (265-294, Taf. 17, 18, 19).

**Primrose, A.** Filariasis in man cured by removal of the adult worms in an operation for lymph scrotum. *Brit. Med. J., London*, **1903**, **2**, (1262-1265, 5 figs.).

**Rouville, E. de.** Revision des Nématodes libres, marins, de la région de Cette. *Paris, C.-R. Acad. sci.*, **137**, 1903, (1002-1003).

**Stiles, Ch. W.** Report upon the prevalence and geographic distribution of hookworm disease (uncinariasis or anchylostomiasis) in the United States. (Second edition). Washington, D.C., Treasury Dept., Pub. Hlth. Mar. Hosp. Serv. Hyg. Lab. Bull. No. **10**, 1903, (122). 23 cm.

**Türk, F.** Ueber einige im Golfe von Neapel frei lebende Nematoden. *Mitt. zool. Stat. Neapel, Berlin*, **16**, 1903, (281-348, mit 2 Taf.).

#### SPECIAL.

*Angiostoma helicis* n. sp. parasite de l'appareil génital d'*Helix aspersa*. **Conte, A. et Bonnet, A.** *Paris, C.-R. soc. biol.*, **55**, 1903, (198-199).

*brachylaimus* n. sp. Siam. **Linstow, O. von.** *Arch. mikr. Anat., Bonn*, **62**, 1903, (108-121, mit 1 Taf.).

*Anguillula intestinalis*. **Fülleborn.** *Münchener med. Wochenschr.*, **50**, 1903, (39-40).

*Ankylostoma*, Anchylostomiasis im [malayischen] Archipel. (Holländisch) **Meer, J. F. van der.** *Batavia, Geneesk. Tijdschr. Ned. Ind.*, **43**, 1903, (813-817).

Einwanderung von der Haut aus. **Looss, A.** *Centralbl. Bakt., Jena, Abt. 1*, **33**, Originale, 1903, (330-343).

Einwanderung von der Haut aus. Uebersetzt von M. K. **Pieri, G.** *l.c.* **34**, (531-535).

*Ankylostoma duodenale*, in Semarang und Umgegend. (Holländisch) **Benjamins, C. E.** *Batavia, Geneesk. Tijdschr. Ned. Ind.*, **43**, 1903, (828-835).

**Bruns, H.** *Münchener med. Wochenschr.*, **50**, 1903, (474-476, 693).

causing anaemia in Cornwall. **Haldane.** *Nature, London*, **67**, 1903, (158).

sur le mode de transmission. **Pieri, G.** *Arch. ital. biol., Torino*, **37**, 1902, (269-273); *Roma, Rend. Acc. Lincei (Ser. 5)*, **11**, (1<sup>re</sup> sem.), 1902, (217-220).

**Tenholt, [A.].** *Münchener med. Wochenschr.*, **50**, 1903, (563-564); *Centralbl. Bakt., Jena, Abt. 1*, **34**, Referate, 1903, (1-10, 33-50).

*Anticoma calveti* n. sp. **Rouville, E. de.** *Paris, C.-R. Acad. sci.*, **137**, 1903, (1002).

*Ascaris* nn. spp. Siam. **Linstow, [O.] von.** *Arch. mikr. Anat., Bonn*, **62**, 1903, (108-121, mit 1 Taf.).

nn. spp. **Linstow, O. v.** *St. Petersburg, Ann. Mus. zool. Ac. Sc.*, **8**, 1903, (265-295, Taf. 17, 18, 79).

*lumbrioides* comme parasite de l'homme. **Dehnel, J.** *Medyc., Warszawa*, **31**, 1903, (805-809).

*A. megaloccephala* Cloqu. **Goldschmidt, R.** *Zool. Jahrb., Jena, Abt. f. Anat.*, **18**, 1903, (1-57, mit 5 Taf.).

ausgepresste Extrakte und ihre [gährende] Wirkung. **Weinland, E.** *Zs. Biol., München*, **43**, 1902, (86-111).

ausgeschiedene Fettsäure. **Weinland, E. l.c.** **45**, 1903, (113-116).

Bildung von Glykogen aus Kohlehydraten. **Weinland, E. und Ritter, A. l.c.** **43**, 1902, (490-502).

*megaloccephala*, Embryonalentwicklung. **Müller, H.** *Zoologica, Stuttgart, H.* **41** (= Bd 17, Lfg 3. 4), 1903, (1-30, mit 5 Taf.).

*Cheilospirura* nn. spp. Siam. **Linstow, O. von.** *Arch. mikr. Anat., Bonn*, **62**, 1903, (111, 112).

*Chromodora dubiosa* n. sp. **Daday, J.** Math. Term. Ért., Budapest, **21**, 1903, (336-337).

*Cucullanus elegans*, zur Geschichte der intrauterinen Entwicklung. **Martini, E.** Zool. Anz., Leipzig, **26**, 1903, (531-532).

———— Furchung und Gastrulation. **Martini, E.** Zs. wiss. Zool., Leipzig, **74**, 1903, (501-556, mit 3 Taf.).

*Cylicolaimus jaegerskoeldi* n. sp. Golfe von Neapel. **Türk, F.** Mitt. Zool. Stat. Neapel, Berlin, **16**, 1903, (334-340).

*Dorylaimus atratus* n. sp. **Linstow, v. O.** Genova, Boll. Musei zool. anat. comp., **1901**, N. 109, (2. con. fig.).

*Filaria*, parasitism in a crow [*Corvus*]. **Killott, J. H.** Wood's Holl, Mass., Mar. Biol. Lab. Bull., **4**, 1903, (64-65).

———— nn. spp. Siam. **Linstow, O. von.** Arch. mikr. Anat., Bonn, **62**, 1903, (115-116, figs. 14, 15).

———— probably n. sp. Bombay, in the blood of man. **Powell, A.** Brit. Med. J., London, **1903**, **1**, (1145).

———— *anthicola* n. sp. **Linstow, O. v.** St. Petersburg, Ann. Mus. zool. Ac. Sc., **8**, 1903, (265-294, Taf. 17, 18, 19).

———— *bancrofti*, *F. immitis*, remarks on the life-history. **Sambon, L. W.** Lancet, London, **163**, 1902, (422-426).

———— *haemophila* n. sp. **Linstow, O. von.** Centralbl. Bakt., Jena Abt. 1, **35**, Originale, 1903, (352-357).

———— *medinensis*, the life-span. **Manson, P.** Brit. Med. J., London, **1903**, **2**, (10).

———— *papillosa*. **Vysotsky, N.** Arch., veterin. nauk, St. Petersburg, **1902**, **12**, (1046-1047).

———— *parvomucronata* n. sp. Italy. **Rizzio, A.** Arch. parasit., Paris, **8**, 1902, (26-41).

———— *perstans* shown not to be the cause of sleeping sickness in Africa. **Christie, Low and Castellani.** Nature, London, **87**, 1903, (153).

———— [cause of sleeping sickness]. **Low, G. C.** Brit. Med. J., London, **1903**, **1**, (722-724, figs. 1, 2).

*Gephyronema* n. gen., *G. laeve* n. sp. **Linstow, von in Augener, H.** Arch. Natg., Berlin, **69**, Bd 1, 1903, (359, pl. XX, fig. 29).

*Heterakis* nn. spp. Siam. **Linstow, O. von.** Arch. mikr. Anat., Bonn, **62**, 1903, (110, figs. 5, 6).

———— *perspicillum* Rud. **Golovin, J.** Kazani, Zap. Univ., **70**, XII, 1903, (119-132, mit 1 Taf.).

*Leptosomatum papillatum* n. sp. **Linstow, O. v.** St. Petersburg, Ann. Mus. Zool. Ac. Sc., **8**, 1903, (265-294, Taf. 17, 18, 19).

*Lissonema* n. gen., *L. rotundatum* n. sp. Siam. **Linstow, O. von.** Arch. mikr. Anat., Bonn, **62**, 1903, (117, figs. 16-20).

*Mermis* nn. spp. **Linstow, O. von.** Centralbl. Bakt., Jena, Abt. 1, **34**, Originale, 1903, (527, figs. 1-6).

*Monohystera labiata* n. sp. **Daday, J.** Math. Term. Ért., Budapest, **21**, 1903, (335-336).

*Oesophagostomum tuberculatum* n. sp., parassita dei *Dasyus*. **Parona, C. e Stossich, M.** Genova, Boll. Musei zool. anat. comp., **1901**, N. 110, (3. con. figg.).

*Oxyrama tuberculatum* n. sp. Siam. **Linstow, O. von.** Arch. mikr. Anat., Bonn, **62**, 1903, (114, fig. 13).

*Oxyuris* nn. spp. Siam. **Linstow, O. von.** l.c. (113, 114, figs. 12, 13).

———— *annulata* n. sp. Italy. **Rizzio, A.** Arch. parasit., Paris, **8**, 1902, (26-41).

———— *vermicularis* et *Trichocephalus trichiuris*, un cas d'appendicite. **Galli-Valerio, B.** Centralbl. Bakt., Jena, Abt. 1, **35**, Originale, 1903, (350-355).

*Physaloptera caucasica* n. sp. **Linstow, O. v.** St. Petersburg, Ann. Mus. Zool. Ac. Sc., **8**, 1903, (265-294, Taf. 17, 18, 19).

*Rhabditis brevispina*, cultural studies **Metcalf, H.** Lincoln, Stud. Zool. Lab., Univ. Neb., No. **54**, 1903, (35-48, with 1 pl.).

———— *nigrovenosa*, postembryonale Entwicklung. **Neubaus, C.** Jenaische Zs. Natw., **37**, 1903, (653-690, mit 3 Taf.).

*Rictularia paradoxa* n. sp.  
**Linstow**, O. v. St. Petersburg, Ann.  
Mus. Zool. Ac. Sc., **8**, 1903, (265-294,  
Taf. 17, 18, 19).

*Sabatieria* n. gen. **Bouville**, E. de.  
Paris, C.R. Acad. sci., **137**, 1903,  
(1002).

*Sclerostoma syngamus*. **Brown**, A. A.  
Vict. Journ. Dep. Agric., Melbourne, **2**,  
1903, (175-176).

———— *armatum*, Bau und Lebens-  
geschichte. **Sticker**, A. Arch. Thier-  
heilk., Berlin, **27**, 1901, (187-232, mit 1  
Taf.).

*Strongylus*? n. sp. Italy. **Rizzio**, A.  
Arch. parasit., Paris, **6**, 1902, (26-41).

———— *armatus*, Schmarotzerleben  
und Beziehungen zur Kolik der Pferde.  
**Olt**, D. landw. Tierzucht, Leipzig, **5**,  
1901, (31-33).

———— *catanensis* n. sp. Italy.  
**Rizzio**, A. Arch. parasit., Paris, **6**,  
1902, (26-41).

———— *filaria*. **Brown**, A. A.  
Vict. Journ. Dep. Agric., Melbourne,  
**2**, 1903, (73-74).

*Thoracostoma* nn. spp. Golf von  
Neapel: **Türk**, F. Mitt. zool. Stat.  
Neapel, Berlin, **16**, 1903, (284-330).

*Trichina spiralis*. **Johne**, A. Der  
Trichinenschauer. Berlin, 1903, (XII+  
183).

———— **Long-Preusse**.  
Praktische Anleitung zur Trichinen-  
schau. 4. Aufl. bearb. v. M. Preusse  
Berlin (R. Schoetz), 1903, (IV + 65).

———— histologische  
Veränderungen in Spätstadien. **Ossi-  
pow**, N. Beitr. path. Anat., Jena, **34**,  
1903, (253-268, mit 2 Taf.).

———— **Matthes**, M.  
Trichinosis. [In: Lehrbuch der inneren  
Medizin, hrsg. v. J. v. Mering. 2. um-  
gearb. Aufl.] Jena, 1903, (497-501).

———— **Merkel**, G.  
[In: Handbuch der Therapie innerer  
Krankheiten, Bd 1.] Jena, 1902, (554-  
569).

*Trichosoma* nn. spp. Pologne, Galicie.  
**Kowalewski**, M. Kraków, Rozpr. Akad.,  
B, **43**, 1903, (194-218, av. 3 pls.); Bull.  
Intern. Acad., **1903**, (517-519, av.  
3 pls.).

*Trichosoma hepaticum*. **Galli-Valerio**,  
B. Centralbl. Bakt., Jena, Abt. 1, **35**,  
Originale, 1903, (81-91).

———— *mingazzinii* n. sp.  
Catania. **Rizzio**, A. Arch. parasit.,  
Paris, **6**, 1902, (26-41).

*Tylenchus devastatrix*, Pflanzen-  
schädling. **Ritzema Bos**, [J.]. Zs.  
Pflanzenkrankh., Stuttgart, **13**, 1903,  
(193-198).

## NEMATOMORPHA.

### GENERAL.

**Camerano**, L. Gordiacea nouveaux  
ou peu connus du Musée Zoologique de  
l'Académie Imp. d. Sc. de St. Péter-  
bourg II. St. Petersburg, Ann. Mus.  
zool. Ac. Sc., **8**, 1903, (22-29).

### SPECIAL.

*Chordodes* spp. **Montgomery**, T. H.,  
jun. Philadelphia, Pa., Proc. Acad. Nat.  
Sci., **53**, 1901, (289-292, with pl.); [re-  
print], Philadelphia, Cont. Zool. Lab.,  
Univ. Pa., **1901**, 1902, (289-292, with pl.).

———— *skorikovi* n. sp. Ceylon.  
**Camerano**, L. St. Petersburg, Ann. Mus.  
zool. Ac. Sc., **8**, 1903, (22-29).

*Paragordius varius*, adult organisa-  
tion. **Montgomery**, T. H., jun. Zool.  
Jahrb., Jena, Abt. f. Anat., **18**, 1903,  
(387-474, mit 7 Taf.).

## ACANTHOCEPHALA.

### GENERAL.

**Graybill**, H. W. Some points on the  
structure of the Acanthocephala. [With  
bibliography.] Lincoln, Stud. Zool.  
Lab., Univ. Nebr., No. **49**, 1902, (191-  
200, 1 pl.).

**Linstow**, O. v. Entozoa des zoolo-  
gischen Museums der Kaiserlichen  
Akademie der Wissenschaften zu St.  
Petersburg. II. St. Petersburg, Ann.  
Mus. zool. Ac. Sc., **8**, 1903, (265-294,  
Taf. 17, 18, 19).

**Marval**, L. de. Les échinorhynques.  
Arch. Sci. Phys., (Genève, (sér. 4), **14**,  
1902, (181-183).

## SPECIAL.

*Echinorhynchus* nn. spp. Siam and Malay Peninsula. Shipley, A. E. London, Proc. Zool. Soc., 1903, 2, (149-152, pl. XVI).

——— *cestodicola* n. sp. Linstow, O. v. St. Petersburg, Ann. Mus. zool. Ac. Sc., 8, 1903, (265-294, Taf. 17, 18, 19).

## LIST OF NEW GENERA AND SPECIES.

## ANGIOSTOMA [Nematoda].

——— *helicia*. Conte et Bonnet. 8.  
——— *brachylaimus*. Linstow. 28.

## ANTICOMA [Nematoda].

——— *calveti*. Rouville. 56.

## ASCARIN [Nematoda].

——— *centridermichthys*. Linstow. 29.  
——— *clupeae-ponticae*. Linstow. 29.  
——— *dipsadomorphi*. Linstow. 28.  
——— *euzina*. Linstow. 29.  
——— *infundibulicola*. Linstow. 28.  
——— *pallisii*. Linstow. 29.  
——— *septangularis*. Linstow. 29.  
——— *solitaria*. Linstow. 28.

## CHEILOSPIRURA [Nematoda].

——— *ophthalmica*. Linstow. 28.  
——— *siamensis*. Linstow. 28.

## CHORDODES [Nematomorpha].

——— *skorikovi*. Cameraano. 6.

## CHROMODORA [Nematoda].

——— *dubiosa*. Daday. 10.

## CYLICOLAIMUS [Nematoda].

——— *jaegerskoeldi*. Turk. 64.

## DORYLAIMUS [Nematoda].

——— *atratus*. Linstow. 30.

## ECHINORHYNCHUS [Acanthocephala].

——— *bufonis*. Shipley. 58.  
——— *cestodicola*. Linstow. 29.  
——— *patani*. Shipley. 58.  
——— *tigrinae*. Shipley. 58.  
——— *zenopeltidis*. Shipley. 58.

## FILARIA [Nematoda].

——— *anthicola*. Linstow. 29.  
——— *haemophila*. Linstow. 26.  
——— *longicirrata*. Linstow. 28.  
——— *parvomucronata*. Rizzio. 55.  
——— *sciuri*. Linstow. 28.

## Gephyronema n. gen. [Nematoda].

——— Linstow, von. 1.  
——— *laeve*. Linstow, von. 1.

## HETERAKIS [Nematoda].

——— *arcularis*. Linstow, von. 28.  
——— *rimula*. Linstow, von. 28.

## LEPTOSOMATUM [Nematoda].

——— *papillatum*. Linstow, v. 29.

## Lissonema n. gen. [Nematoda].

——— Linstow, von. 28.  
——— *rotundatum*. Linstow, von. 28.

## MERMIS [Nematoda].

——— *mirabilis*. Linstow, von. 25.  
——— *nigra*. Linstow, von. 25.

## MONOHYSTERA [Nematoda].

——— *labiata*. Daday. 10.

## OESOPHAGOSTOMUM [Nematoda].

——— *tuberculatum*. Parona e Stossich. 49.

## ONYSOMA [Nematoda].

——— *tuberculatum*. Linstow, von. 28.

## OXYRIS [Nematoda].

——— *annulata*. Rizzio. 55.  
——— *coronata*. Linstow, von. 28.  
——— *siamensis*. Linstow, von. 28.

## PHYSALOPTERA [Nematoda].

——— *caucasica*. Linstow, v. 29.

## RICTULARIA [Nematoda].

——— *paradoxa*. Linstow, v. 29.

*Sabatieria* n. gen. [Nematoda]. Rouville, de. 56.

## STRONGYLUS [Nematoda].

——— *catanensis*. Rizzio. 55.

## THORACOSTOMA [Nematoda].

——— *comes*. Turk. 64.  
——— *straseeni*. Turk. 64.

## TRICHOSOMA [Nematoda].

——— *mingassinii*. Rizzio. 55.  
——— *parile*. Kowalewski. 23.  
——— *simile*. Kowalewski. 23.

## 1603-1631.

## CHÆTOGNATHA.

## ROTIFERA.

## GASTROTRICHA.

## KINORHYNCHA (or ECHINODERA).

## TITLES.

Bryce, D. On two new species of *Philodina*. London, J. Quek. Microsc. Cl., 8, 1903, (523-530, pl. XXVII). [1631].

**Collin, Ant[on].** Bericht über die Rotatorien- und Gastrotrichen-Litteratur im Jahre 1895. Arch. Natg., Berlin, 62, Bd 2, H. 3, 1896, [1903], (131-144). [1603]. 2

**Dixon Nuttall, F. R. and Freeman, R. I.** The Rotatorian genus *Diaschiza*: a monographic study, with description of a new species. London, J. R. Microsc. Soc., 1903, (1-14, 129-141, pls. I-IV). [1631 1607]. 3

**Freeman, R. v. Dixon Nuttall, F. R.**

**Günther, R. T.** On the distribution of mid-water Chaetognatha in the North Atlantic during the month of November. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (334-337). [1619 1631]. 4

**Hilgendorf, F. W.** The Rotifera of New Zealand. Wellington, Trans. N. Zeal. Inst., 35, 1903, (267-271). [1631]. 5

**Jennings, H[erbert] S[pencer].** Rotatoria of the United States. 2. A monograph of the *Rattulidae*. [With bibliography.] Washington, D.C., Bull. U. S. Fish Com., 22, (1902), 1903, (273-352, with text fig. and pl.). [1627 gf 1631]. 6

**Krumbach, Thilo.** Ueber die Greifhaken der Chaetognathien. Eine biologische Studie. Gleichzeitig ein Beitrag zur Systematik dieser Thiergruppe. Zool. Jahrb., Jena, Abt. f. Syst., 18, 1903, (579-646). [1607 1631]. 7

**Lo Bianco, Salvatore.** Le pesche abissali eseguite da F. A. Krupp col Yacht Puritan nelle adiacenze di Capri ed in altre località del Mediterraneo. Mitt. zool. Stat. Neapel, Berlin, 16, 1903, (109-279, mit 3 Taf.). [0431 1631 2231 2631 0227 dm 0219 0231]. 8

**Lucks, R.** Die Floscularien. Eine naturgeschichtliche Studie. Natw. Wochenschr., Jena, 18, 1903, (589-594). [1631]. 9

**Marks, K. I. and Wesché, W.** Further observations on male Rotifers. London, J. Quek. Microsc. Cl., 8, 1903, (505-512, pl. XXVI). [1619 1631]. 10

**Montgomery, Thomas H[arrison], jun.** On the morphology of the Rotatorian family *Flosculariidae*, [with bibliography]. Philadelphia, Pa., Proc. Acad. Nat. Sci., 55, 1903, (363-395, with pl.). [1607 1631]. 11

— On *Floscularia conklini* nov. spec., with a key for the identifica-

tion of the known species of the genus [with bibliography]. Wood's Holl. Mass., Mar. Biol. Lab. Bull., 5, 1903, (233-238). [1631]. 12

**Piovanelli, S.** Two new Bdelloida commensal in the branchial cavities of *Telphusa fluvialis* Imk. London, J. Quek. Microsc. Cl., 8, 1903, (521-522). [1619 1631 2619]. 13

**Rousselot, Charles F.** Liste der bis jetzt bekannt gewordenen männlichen Rädertiere. Plön, ForschBer. biol. Stat., 10, 1903, (172-176). [1619 1631]. 14

**Skorikov, A. S.** Note sur trois espèces nouvelles de Rotateurs. (Russ.) St. Petersburg, Ann. Mus. Zool. Ac. Sc., 8, 1903, (XIX-XXI). [1631]. 15

**Stevens, N. M.** On the oogenesis and spermatogenesis of *Sagitta bipunctata*. Zool. Jahrb., Jena, Abt. f. Anat., 18, 1903, (227-240, mit 2 Taf.). [1615 1631]. 16

**Vallentin, R.** Observations on the Plankton of Looe pool. Truro, J. R. Inst. Cornwall, 15, 1903, (328-344). [0219 1619 2619]. 17

**Voigt, Max.** Eine neue Gastrotrichen-species (*Chaetonotus arguatus*) aus dem Schlossparkteiche zu Plön. Plön, ForschBer. biol. Stat., 10, 1903, (90-93). [1631 1627 dc]. 18

**Wesché, W. v. Marks, K. I.**

**Zernov, S. A.** Ueber das Zooplankton des Aral-Sees auf Grund der von L. S. Berg im Jahre 1900 gesammelten Materialien. (Russ.) Taschkent, Izv. Turk. Otd. Russ. Geogr. Obsč., 3, livr. III, 1903, (1-38). [0227 0427 1627 1631 2627 ea 2631]. 19

## 1603 COMPREHENSIVE AND GENERAL WORKS.

**Collin, Ant[on].** Bericht über die Rotatorien- und Gastrotrichen-Litteratur im Jahre 1895. Arch. Natg., Berlin, 62, Bd 2, H. 3, 1896, [1903], (131-144).

## 1607 STRUCTURE.

**Dixon Nuttall, F. R. and Freeman, R.** The Rotatorian genus *Diaschiza*: a monographic study, with description of a new species.

**Krumbach**, Thilo. Ueber die Greifhaken der Chätognathen. Eine biologische Studie. Gleichzeitig ein Beitrag zur Systematik dieser Thiergruppe. Zool. Jahrb., Jena, Abt. f. Syst., **18**, 1903, (579-646).

**Montgomery**, Thomas H[arrison], jun. On the morphology of the Rotatorian family *Flosculariidae*, [with bibliography]. Philadelphia, Pa., Proc. Acad. Nat. Sci., **55**, 1903, (363-395, with pl.).

## 1615 DEVELOPMENT.

**Stevens**, N. M. On the oogenesis and spermatogenesis of *Sagitta bipunctata*. Zool. Jahrb., Jena, Abt. f. Anat., **18**, 1903, (227-240, mit 2 Taf.).

## 1619 ETHOLOGY.

**Günther**, R. T. On the distribution of mid-water Chaetognatha in the North Atlantic during the month of November. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (334-337).

**Marks**, K. I. and **Wesché**, W. Further observations on male Rotifers. London, J. Quek. Microsc. Cl., **8**, 1903, (505-512, pl. XXV).

**Piovanelli**, S. Two new Bdelloida commensal in the branchial cavities of *Telphusa fluviatilis* Lmk. l.c. (521-522).

**Vallentin**, R. Observations on the plankton of Looe Pool. Truro, J. R. Inst. Cornwall, **15**, 1903, (328-344).

## 1627 GEOGRAPHICAL DISTRIBUTION.

*d* EUROPE.

*dc* GERMAN EMPIRE.

**Voigt**, Max. Eine neue Gastrotrichen-species (*Chaetonotus arquatus*) aus dem Schlossparkteiche zu Plön. Plön, Forsch.-Ber. biol. Stat., **10**, 1903, (90-93).

*c* ASIA.

*ea* ASIATIC RUSSIA.

**Zernov**, S. A. Ueber das Zooplankton des Aral-Sees, auf Grund der von L. S.

Berg im Jahre 1900 gesammelten Materialien. (Russ.) Taskent, Izv. Turk. Otd. Russ. Geogr. Obsč., **3**, livr. III, 1903, (1-38).

*g* NORTH AMERICA.

*gf* UNITED STATES.

**Jennings**, H[erbert] S[pencer]. Rotatoria of the United States. 2. A monograph of the *Rattulidae*. [With bibliography]. Washington, D.C., Bull. U. S. Fish Com., **22**, (1902), 1903, (273-352, with text fig. and pl.).

*l* ATLANTIC.

*la* N. ATLANTIC.

**Günther**, R. T. On the distribution of mid-water Chaetognatha in the North Atlantic during the month of November. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (334-337).

## 1631 TAXONOMY AND SYSTEMATIC.

### CHAETOGNATHA.

#### GENERAL.

**Krumbach**, T. Ueber die Greifhaken der Chätognathen. Eine biologische Studie. Gleichzeitig ein Beitrag zur Systematik dieser Thiergruppe. Zool. Jahrb., Jena, Abt. f. Syst., **18**, 1903, (579-646).

#### SPECIAL.

*Sagitta bipunctata*, oogenesis and spermatogenesis. **Stevens**, N. M. Zool. Jahrb., Jena, Abt. f. Anat., **18**, 1903, (227-240, mit 2 Taf.).

*Spadella* nn. spp. Mediterranean. **Lo Bianco**, S. Mitt. zool. Stat. Neapel, Berlin, **18**, 1903, (109-279).

### ROTIFERA.

#### GENERAL.

A key to the Rotifera, for the amateur. The American monthly microscopical journal, Washington, D.C., **23**, 1902, (89-114).



**Hilgendorf**, F. W. List of New Zealand Rotifera. Wellington, Trans. N. Zeal. Inst., **35**, 1903, (267-271).

**Jennings**, H. S. Rotatoria of the United States. 2. A monograph of the *Ratuliidae*. [With bibliography.] Washington, D.C., Bull. U. S. Fish. Com., **22**, (1902), 1903, (273-352, with text fig. and pl.).

**Lucks**, R. Die Floscularien. Eine naturgeschichtliche Studie. Natw. Wochenschr., Jena, **18**, 1903, (589-594).

**Marks**, K. I. and **Wesché**, W. Further observations on male Rotifers. London, J. Quek. Microsc. Cl., **8**, 1903, (505-512, pl. XXVI).

**Montgomery**, T. H., jun. On the morphology of the Rotatorian family *Flosculariidae*, [with bibliography]. Philadelphia, Pa., Proc. Acad. Nat. Sci., **55**, 1903, (363-395, with pl.).

**Rousselot**, Charles F. Liste der bis jetzt bekannt gewordenen männlichen Rädertiere. Plön, ForschBer. biol. Stat., **10**, 1903, (172-176).

**Zernov**, S. A. Ueber das Zooplankton des Aral-Sees . . . (Russ.) Taschent, Izv. Turk. Otd. Russ. Geogr. Obsč., **III**, livr. III, 1903, (1-38).

*Floscularia discophora* n. sp. Ladoga and Newa. **Skorikov**, A. S. St. Petersburg, Ann. Mus. zool. Ac. Sc., **8**, 1903, (XIX).

*Mastigocerca minima* n. sp. Ladoga, Newa and Wolga. **Skorikov**, A. S. l.c. (XXI).

*Notholca triarthroides* n. sp. Newa **Skorikov**, A. S. l.c. (XX).

*Pedalion oxyure* n. sp. Aral-See. **Zernov**, S. A. Taschent, Izv. Turk. Otd. Russ. Geogr. Obsč., **3**, livr. III, 1903, (1-38).

*Philodina* nn. spp., nn. varr. **Bryce**, D. London, J. Quek. Microsc. Cl., **8**, 1903, (523-530, pl. XXVII).

*Pterodina patina* Ehr. ♂. **Marks**, K. I. and **Wesché**, W. l.c. (509-510, fig. 3).

## GASTROTRICHA.

*Chaetonotus arquatus*, eine neue Gastrotrichenspecies aus dem Schlossparkteiche zu Plön. **Voigt**, M. Plön, ForschBer. biol. Stat., **10**, 1903, (90-93).

## SPECIAL.

*Anomopus* n. gen., *A. telphusae* n. sp. **Piovanelli**, S. London, J. Quek. Microsc. Cl., **8**, 1903, (521-522).

*Anuraea brevispina* Crosse ♂. **Marks**, K. I. and **Wesché**, W. l.c. (509, fig. 2).

*Brachionus quadratus* Rons. ♂. **Marks**, K. I. and **Wesché**, W. l.c. (508-509, fig. 1).

*Callidina cancrphila* n. sp. Italy. **Piovanelli**, S. l.c. (521-522).

*Diaschiza*, monographic study with description of *D. derbyi* n. sp. **Dixon Nuttall** and **Freeman**, R. London, J. R. Microsc. Soc., **1903**, (1-14, 129-141, pls. I-IV).

*Diurella* nn. spp. **Jennings**, H. S. Washington, D.C., Bull. U. S. Fish. Com., **22**, (1902), 1903, (273-352).

*Floscularia*, key for the identification of higher species, *F. conklini* n. sp. **Montgomery**, T. H., jun. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **5**, 1903, (233-238).

## LIST OF NEW GENERA AND SPECIES.

**ANOMOPUS** n. gen. [Rotifera]. **Piovanelli**. 13.

— *telphusae*. **Piovanelli**. 13.

**CALLIDINA** [Rotifera].

— *cancrphila*. **Piovanelli**. 13.

**DIASCHIZA** [Rotifera].

— *derbyi*. **Dixon-Nuttall** and **Freeman**. 3.

**DIURELLA** [Rotifera].

— *dixon-nuttalli*. **Jennings**. 6.

— *ueberi*. **Jennings**. 6.

**FLOSCULARIA** [Rotifera].

— *conklini*. **Montgomery**, jun. 11.

— *discophora*. **Skorikov**. 15.

**MASTIGOCERCA** [Rotifera].

— *minima*. **Skorikov**. 15.

**NOTHOLCA** [Rotifera].

— *triarthroides*. **Skorikov**. 15.

**PEDALION** [Rotifera].

— *oxyure*. **Zernov**. 19.

PHILODINA [Rotifera].

- *nemorialis*. Bryce. 1.  
 ——— *rugosa*. Bryce. 1.  
 ——— *rugosa* var. *callosa* n. var.  
         Bryce. 1.  
 ——— *rugosa* var. *coriacea* n. var.  
         Bryce. 1.

SRADELLA [Chaetognatha].

- *musculosa*. Lo Bianco. 8.  
 ——— *profunda*. Lo Bianco. 8.

1803-1831.

ARCHIANNELIDA.  
 POLYCHAETA.  
 MYZOSTOMARIA.  
 OLIGOCHAETA.  
 HIRUDINEA.  
 GEPHYREA.  
 PHORONIS.

TITLES.

**Augener, Hermann.** Beiträge zur Kenntnis der Gephyreen nach Untersuchung der im Göttinger zoologischen Museum befindlichen Sipunculiden und Echiuriden. Arch. Natg., Berlin, **69**, Bd 1, 1903, (297-371, mit 5 Taf.). [1831 1807 1431 2631 2619]. 1

**Beddard, F. E.** On a new genus and two new species of earthworms of the family *Eudrilidae* with some notes upon other African Oligochaeta. London, Proc. Zool. Soc., **1903**, 1, (210-222, figs. 35-38). [1827 f 1831]. 2

———— The earthworms of the Maldive and Laccadive Islands. [Gardiner's] Fauna and Geography of the Maldive and Laccadive Archipelagoes, **1**, (374-375). [1827 ma 1831]. 3

**Benham, W. B.** On some new species of aquatic Oligochaeta from New Zealand. London, Proc. Zool. Soc., **1903**, 2, (202-232, pls. XXIV-XXVI). [1827 ik 1831]. 4

———— On a new species of earthworm from Norfolk Island. Wellington, Trans. N. Zeal. Inst., **35**, 1903, (273-274). [1831 1827 ik]. 5

———— On an earthworm from Auckland Islands. *Notiodrilus aucklandicus*. Wellington, Trans. N. Zeal.

Inst., **35**, 1903, (275-277). [1831 1827 ik]. 6

**Benham, W. B.** On the old and some new species of earthworms belonging to the genus *Plagiochaeta*. Wellington, Trans. N. Zeal. Inst., **35**, 1903, (277-290). [1837]. 7

**Bergmann, W[illy].** Ueber das spätere Schicksal der Zwitterdrüsen von *Heione sicula*. (Vorläuf. Mitt.). Zool. Anz., Leipzig, **26**, 1903, (415-417). [1807 1831]. 8

**Bohn, Georges.** Des localisations respiratoires chez les Annélides. Paris, C.-R. soc. biol., **55**, 1903, (306-308). [1811]. 9

———— De l'indépendance fonctionnelle des zoides d'un Annélide, à propos des phénomènes de rotation présentés par les Hirudinées. Bul. Muséum, Paris, **1903**, (26-30). [1819 0219 1831]. 10

———— Observations biologiques sur les Arénicoles. Bul. Muséum, Paris, **1903**, (62-73, av. fig.). [1819 1831]. 11

**Bortolotti, C.** Nota preventiva sulla funzione delle cellule cloragogene nei generi *Lumbricus* ed *Allolobophora*. Roma, Rend. Acc. Lincei, (Ser. 5), **11**, 1902, (449-451). [1811 1831]. 12

**Brandes, G[ustav].** Ueber ein Vorkommen von *Hirudo medicinalis* in Thüringen. Zs. Natw., Stuttgart, **76**, 1903, (143-144). [1827 de 1831]. 13

**Bretschner, K.** Beobachtungen über die Oligochaeten der Schweiz. VI, VII Folge. Rev. Suisse Zool., Genève, **10**, 1902, (1-29, mit 4 Taf.); **11**, 1903, (21, mit 1 Taf.). [1827 di 1819 1831]. 14

———— Oligochaeten aus Graubünden. Rev. Suisse Zool., Genève, **11**, 1903, (113-122). [1827 di 1831]. 15

**Bykowski, L.** Contributions à l'anatomie des Polychètes sédentaires. Matériaux pour servir à la connaissance des néphridies et des organes chloragènes. (Polonais) Kosmos, Lwów, **28**, 1903, (67-87, av. 1 pl.). [1807 1831]. 16

**Clarke, John M[ason].** Some Devonian worms. Albany Univ., N.Y., Bull. St. Mus., No. **69**, 1903, (1234-1238, with pl.). [1827 gg]. 17

**Collin, Ant.** Verzeichniss der von Professor R. Semon bei Amboina und

Thursday Island gesammelten Poly-  
chäten. Jena, Denkschr. med. (Ges.), **8**,  
1903, (739-742). [1827 ia 1831]. 18

**Coupin, Henri.** Les Géphyriens.  
Nature, Paris, (1<sup>re</sup> sem.), **31**, 1903, (91-  
92, av. fig.). [1831 1819 1815]. 19

**Cowles, R. P.** Notes on the rearing  
of the larvae of *Polygordius appendicu-  
latus* and on the occurrence of the adult  
on the Atlantic coast of America. Wood's  
Holl, Mass., Mar. Biol. Lab. Bull., **4**,  
1903, (125-128). [1815 1827 gg gh  
1831]. 20

**Crossland, C.** On the marine fauna  
of Zanzibar and British East Africa,  
from collections made by Cyril Cross-  
land in the years 1901 and 1902. Poly-  
chaeta. London, Proc. Zool. Soc., **1903**,  
1, (169-176, pls. XVI, XVII). [1827 ff  
1831]. 21

Polychaeta, II. London,  
Proc. Zool. Soc., **1903**, 2, (129-144, pls.  
XIV, XV, text figs. 12-15). [1831  
1827 ff]. 22

**Crossman, R. W. v. Weed, C. M.**

**Duserre, C.** Ueber die Einwirkung  
der Regenwürmer auf die chemische  
Zusammensetzung des Bodens. Landw.  
Jahrb. Schweiz., Bern, **16**, 1902, (75-78).  
[1819 1831]. 23

**Enriques, [Paolo].** Note fisiologica  
sul *Sipunculus nudus*. Mon. zool. ital.,  
Firenze, **13**, 1902, (Supplemento), (51-  
52). [1811 1831]. 24

**Eury, J.** Présence d'un lombric dans  
un œuf de poule [*Allolobophora furtiva*].  
Bul. sci. pharm., Paris, **4**, 1902, (99-  
100). [1819 1831 5819]. 25

**Fauvel, P.** Les Néphridies. Réponse  
à M. Cosmovici. Bul. sci. France Bel-  
gique, Paris, **36**, 1902, (167-177). [1807].  
26

**Forbes, H. O.** Leeches and worms.  
Nat. Hist. Sokotra, (443). [1827 ff  
1831]. 27

**Frans, Friedrich.** Ueber den die  
Blutgerinnung aufhebenden Bestandteil  
des medicinischen Blutgels [Herudin].  
Arch. exper. Path., Leipzig, **49**, 1903,  
(342-366). [1831 1811]. 28

**Galvagni, Egon.** Histologie des genus  
*Otenodrilus* Clap. Wien, Arb. Zool.  
Inst. Univ., **15**, 1903, (47-80, 2 Taf.)  
[1807 1831]. 29

**Gardiner, J. S.** The breaking-up of  
coral rock by organisms in the Tropics.  
London, Rep. Brit. Ass., **1902**, (654-  
655). [Prelim. Abstract], Nature,  
London, **66**, 1902, (641). [1019 1819  
0819]. 30

**Gariaev, V. P.** Bericht über eine  
Reise zur Untersuchung der Evertebra-  
tenfauna des Baikal-Sees im Sommer  
1900-1901. (Russ.) St. Petersburg.  
Trd. Troick-Kiacht. Otd. Russ. geogr.  
Obsc., **V**, 2, 1902, [1903], (27-48, mit 1  
Karte). [0627 1227 1827 2027  
2227 2627 0631 1231 1831 2031  
2231 2631]. 31

**Glineste.** Sur la structure histolo-  
gique des canaux œsophagiens du Si-  
poncle. Bordeaux, Actes soc. linn., **58**,  
1903, (Proc.-verb., CIV-CXVIII). [1807  
1831]. 32

Quelques observations sur  
les vésicules énigmatiques de la cavité  
générale du Siponcle. Bordeaux, Actes  
soc. linn., **58**, 1903, (Proc.-verb., CLVIII-  
CLXXI, av. fig.). [1807 1831]. 33

Etude des urnes libres de  
la cavité générale du *Sipunculus nudus*.  
Bordeaux, Actes soc. linn., **58**, 1903,  
(Proc.-verb., CLXXIV-CLXXXIV, av.  
fig.). [1807 1831]. 34

**Grönberg, Gösta.** Einige Studien  
über die Regeneration des vorderen  
Körperendes bei den Oligochaeten.  
Helsingfors, Comptes rendus du Congrès  
des Naturalistes et Médecins du Nord  
tenu à Helsingfors du 7 au 12 juillet  
1902, **1903**, VI Section, (16-18). [1811  
1831]. 35

**Herdman, W. A.** The new bio-  
logical station at Port Erin, being the  
16th annual report of the Liverpool  
Marine Biology Committee. Liverpool;  
Proc. biol. Soc., **17**, 1903, (43). [0827 de  
5427 de 2227 de 1803 2627 de  
1227 de]. 36

**Hérubel, Marcel A.** Observations  
physiologiques et histologiques sur les  
Géphyriens (dérivés endothéliaux et  
granules pigmentaires). Paris, C.-R.  
Acad. sci., **136**, 1903, (971-973). [1807  
1811 1831]. 37

**Holmgren, Nils.** Bemerkungen zur  
Schepotieffschen Abhandlung: Unter-  
suchungen über den feineren Bau der  
Borsten einiger Chätopoden und Brachio-  
poden. Anat. Anz., Jena, **24**, 1903,  
(205-208). [1807]. 38

**Horst, R.** New species of the genus *Euphrosyne* from the Siboga-expedition, with a table of the species hitherto known. Leiden, Notes Mus. Jentink, **23**, 1903, (213-222). [1827 *eg ia* 1831]. 39

**Hutton, W. K.** On the anatomy of the Gephyrean *Phascolosoma teres* n. sp. London, Proc. Zool. Soc., **1903**, 1, (29-41, with 3 pls.). [1807 1831]. 40

**Iheda, Iwaji.** On the development of the sexual organs and of their products in *Phoronis*. (Japanese) Annot. Zool. Jap., Tokyo, **4**, 1903, (141-153, with pl.). [1815 1831]. 41

**Iruka, Akira.** On *Nereis mictodonta*, Marenz. (Japanese) Dobuts. Z., Tokyo, **15**, 1903, (427-431). [1807 1831]. 42

——— On a new *Polygordius* from Misaki (*P. ijimai* n. sp.). (Japanese) Annot. Zool. Jap., Tokyo, **4**, 1903, (137-139). [1807 1831]. 43

——— Observations on the Japanese Palolo, *Ceratocephale oahuai*, n. sp. (Japanese) Tokyo, J. Coll. Sci., **17**, Art. 11, 1903, (1-37, with 2 pls.). [1815 1819 1831]. 44

**Johnston, J[ohn] B[lack].** On the blood vessels, their valves, and the course of the blood in *Lumbricus*. [Studies from the Zoological laboratory of West Virginia University No. 8, 1903]. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **5**, 1903, (74-84, with text-figs.). [1807 1831]. 45

**Kesteven, H. Leighton.** A new species of *Dendrostoma*. Sydney, N.S.W., Rec. Austr. Mus., **5**, 1903, (69-73, with 1 pl. and 1 text-fig.). [1827 *ie* 1831]. 46

**Kroeber, Johanna.** An experimental demonstration of the regeneration of the pharynx of *Allolobophora* from endoderm. [Reprint from Wood's Holl, Mass., Mar. Biol. Lab. Bull., **2**, 1900, (105-110)] Bryn Mawr, Pa., Coll. Monogr., (Repr. Ser.), **1**, 1901, (105-110). [0211 1811 1831]. 47

**Lamplugh, G. W. and Walker, J. F.** On a fossiliferous band at the top of the Lower Greensand near Leighton Buzzard (Bedfordshire). London, Q. J. Geol. Soc., **59**, 1903, (234-265). [1027 *de* 2027 *de* 2031 2231 2227 *de* 1827 *de*]. 48

**Lang, Arnold.** Beiträge zu einer Trophocöltheorie. Betrachtungen und Suggestionen über die phylogenetische Ableitung der Blut- und Lymphbehälter, insbesondere der Articulaten. Mit einem einleitenden Abschnitt über die Abstammung der Anneliden. Jenaische Zs. Natw., **38**, 1903, (1-373, mit 6 Taf.). [0207 1823]. 49

**Lang, W. D.** On a fossiliferous bed in the Selbornian of Charmouth. Geol. Mag., London, [4], **10**, 1903, (388-392, with 1 fig.). [1827 *de* 2027 *de* 2227 *de* 0827 *de*]. 50

**Leschke, M.** Beiträge zur Kenntniss der pelagischen Polychaetenlarven der Kieler Föhrde. Wiss. Meeresunters., Kiel, (N. F.), **7**, Abt. Kiel, 1903, (111-136, mit 2 Taf.). [1815 1827 *de*]. 51

**Livanow, N.** Untersuchungen zur Morphologie der Hirudineen. Zool. Jahrb., Jena, Abt. f. Anat., **19**, 1903, (29-90, mit 4 Taf.). [1807 1831]. 52

**M'Intosh, W. C.** Notes from the Gatty Marine Laboratory, St. Andrews. No. XXIV. Part iii. On the British *Eunicidae*. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (553-565). [1827 *de* 1831]. 53

——— Notes from the Gatty Marine Laboratory, St. Andrews. XXV, i. On the *Eunicidae* dredged by H.M.S. "Porcupine" in 1869 and 1870. ii. On Canadian *Eunicidae* dredged by Dr. Whiteaves, of the Canadian Geological Survey, in 1871-1873. iii. On Norwegian *Eunicidae* collected by Canon Norman, D.C.L., F.R.S. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (128-166, pls. X-XIII, with 9 text-figs.). [1827 *gb da* 1831]. 54

**Magnus, R[udolf].** Pharmakologische Untersuchungen an *Sipunculus nudus*. Arch. exper. Path., Leipzig, **50**, 1903, (86-122). [1811 1831]. 55

**Maxiaraki, Stanislaw.** Recherches cytologiques sur les organes segmentaires des vers de terre. Arch. polon. biol. méd., Lwów, **2**, 1903, (1-81, av. 3 pls.); Pols. arch. biol. lek., Lwów, **2**, 1903, (1-78, av. 3 pls.). [1807 1831]. 56

**Michaelsen, W.** Die Oligochäten Nordost-Afrikas, nach den Ausbeuten der Herren Oscar Neumann und Carlo Freiherr von Erlanger. Zool. Jahrb., Jena, Abt. f. Syst., **18**, 1903, (435-556, mit 4 Taf.). [1827 *fb* 1831]. 57

**Michaelsen, W.** Eine neue Haplotaxiden Art und andere Oligochaeten aus dem Telezkischen See im nördlichen Altai. (Hamburg, Verh. natw. Ver., (3. F.), **10**, (1902), 1903, (1-7). [1831 1827 *eb*]. 58

Neue Oligochaeten und neue Fundorte altbekannter. Hamburg, Jahrb. wiss. Anst., **19**, (1901), Beih. 2, 1903, (1-51, mit 1 Taf.). [1831]. 59

Oligochaeten. (Hamburgische Elb-Untersuchung.) Hamburg, Jahrb. wiss. Anst., **19**, (1901), Beih. 2, 1903, (169-210, mit 1 Taf.). [1827 *dc* 1831]. 60

Die geographische Verbreitung der Oligochaeten. Berlin (R. Friedländer u. S.), 1903, (VI + 186, mit 11 Kart.). 27 cm. 12 M. [1827 *a* 1831]. 61

**Moore, J[ohn] Percy.** Polychaeta from the coastal slope of Japan and from Kamchatka and Bering sea. Philadelphia, Pa., Proc. Acad. Nat. Sci., **55**, 1903, (401-490, with pl.). [1827 *ea* *cc ne* 1831]. 62

The Hirudinea of Illinois. [With bibliography.] Urbana, Bull. Ill. Lab. Nat. Hist., **5**, 1901, (479-547, with pl.); [reprint], Philadelphia, Cont. Zool. Lab., Univ. Pa., **1901**, 1902, (479-547, with pl.). [1827 *gg* 1831]. 63

**Mrázek, A[lois] v. Vejvodský, F.**

**Norman, A. M.** Notes on the Natural History of East Finmark. [Polychaeta]. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (281-286). [1827 *db* 1831]. 64

**Pearcy, F. G.** Notes on the Marine deposits of the Firth of Forth, and their relation to its animal life. Glasgow, Trans. Nat. Hist. Soc., **6**, 1903, (217-251, with map). [0427 *de* 0827 *de* 2227 *de* 2627 *de* 5427 *de* 1827 *dc*]. 65

**Petch, T.** The marine fauna of the Humber district and the Holderness coast. Hull, Trans. Sci. F. Nat. Cl., **3**, 1903, (27-41). [1027 *de* 2227 *de* 2627 *de* 0827 *de* 1827 *de*]. 66

Marine zoology at Filey. Naturalist, London, **1903**, (351). [0627 *de* 0827 *de* 1827 *de* 2027 *de* 2627 *de* 2227 *de* 5427 *de* 1027 *de*]. 67

**Pierantoni, Umberto.** Studi anatomici su *Michaelsena macrochaeta* Pierant. Mitt. zool. Stat. Neapel, Berlin, **16**, 1903, (409-444, mit 2 Taf.). [1831 1807]. 68

Sui Syllidi gestanti del Golfo di Napoli. Mon. zool. ital., Firenze, **13**, 1902, (Supplemento), (40-42). [1831]. 69

**Poche, Franz.** Ueber den richtigen Namen der Gattung *Phoronis* Str. Wright. Zool. Anz., Leipzig, **26**, 1903, (466-467). [1831]. 70

**Poll, Heinrich und Sommer, Alfred.** Ueber phaeochrome Zellen im Centralnervensystem des Blutegels. Arch. Anat. Physiol., Leipzig, Physiol. Abt., **1903**, (549-550). [1807 1831]. 71

**Polowsow, Wera.** Ueber kontraktile Fasern in einer Flimmerepithelart und ihre funktionelle Bedeutung. Arch. mikr. Anat., Bonn, **63**, 1903, (365-388, mit 1 Taf.). [1807]. 72

**Rosa, D.** Il cloragogo tipico degli Oligocheti. Torino, Mem. Acc. Sc., (Ser. 2), **52**, (1901-1902), 1902, (119-144, con. tav.); [résumé], Arch. ital. biol., Torino, **37**, 1902, (454-456). [1807 1811 1831]. 73

**Rudolph, Max.** Ueber die Begattung der Regenwürmer. Aus d. Heimat, Stuttgart, **16**, 1903, (70-71). [1831 1819]. 74

**Saint-Joseph, Baron de.** Liste des Annélides polychètes trouvés par M. Adrien Dollfus à Saint-Raphaël, en juin 1902. Feuille jeunes natural., Paris, (ser. 4), **33**, 1903, (202). [1831 1827 *dfj*]. 75

**Schepotieff, Alexander.** Untersuchungen über den feineren Bau der Borsten einiger Chätopoden und Brachiopoden. Zs. wiss. Zool., Leipzig, **74**, 1903, (656-710, mit 4 Taf.). [1807 2007]. 76

**Scott, G. W.** Periods of susceptibility in the differentiation of unfertilized eggs of *Amphitrite*. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **5**, 1903, (35-41, with text fig.). [1811 1831]. 77

**Shipley, A. E.** On the Gephyrea. Report to the Government of Ceylon on the Pearl Oyster Fisheries of the Gulf of Manaar, by W. A. Herdman. Part I, No. iii, (169-176, 1 pl.). [1827 *ef* 1831]. 78

**Shrubsole, O. A.** On the probable source of some of the pebbles of the Triassic Pebble-beds of South Devon and of the Midland Counties. London, Q. J. Geol. Soc., **59**, 1903, (311-333). [1827 de 0827 de 2027 de]. 79

**Siegel.** Die geschlechtliche Entwicklung von *Haemogregarina stepanovi* im Rüsselegel *Placobdella catenigera*. (Vorläuf. Mitt.). Arch. Protistenkunde, Jena, **2**, 1903, (339-342). [0431 0415 1831]. 80

**Sommer, Alfred v. Poll, H.**

**Spieß, Camille.** L'appareil digestif de la sangsue (*Hirudo medicinalis*, Lin.). Recherches morphologiques, histologiques, et physiologiques. Rev. Suisse Zool., Genève, **11**, 1903, (951-952, av. 3 pls.). [1807 1831]. 81

La structure intime de l'appareil digestif de la sangsue. Verh. Schweiz. Natf. Ges., Aarau, **85**, 1902, (78-79); Arch. Sci. Phys., Genève, (sér. 4), **14**, 1902, (548-552). [1807 1831]. 82

**Stolc, Antonín.** Versuche betreffend die Frage, ob sich auf ungeschlechtlichem Wege die durch mechanischen Eingriff oder das Milieu erworbenen Eigenschaften vererben. Arch. Entw.-Mech., Leipzig, **15**, 1903, (638-668). [1811 1823]. 83

**Sukatschoff, Boris.** Beiträge zur Entwicklungsgegeschichte der Hirudineen. II. Ueber die Furchung und Bildung der embryonalen Anlagen bei *Nephele vulgaris* Moqu. Tand. (*Herpobdella atomaria*). Zs. wiss. Zool., Leipzig, **73**, 1903, (321-367, mit 3 Taf.). [1815 1831]. 84

**Todd, R. A.** Notes on the invertebrate fauna and fish-food of the bays between the Start and Exmouth. Plymouth, J. Mar. Biol. Ass., **6**, 1903, (541-561). [5003 5027 de 2219 2227 de 2603 1827 de 0060 1019 1027 de 0827 de 0819 0227 de]. 85

**Torrey, John Cutler.** The early embryology of *Thalassoma mellita* (Com). [Ph.D., Columbia University]. New York, N.Y., Ann. Acad. Sci., **14**, 1903, (165-246, with pl.). [0215 1815 1831]. 86

**Treadwell, Aaron L[ouis].** Notes on the nature of "artificial parthenogenesis" in the egg of *Podake obscura*.

Wood's Holl, Mass., Mar. Biol. Lab. Bull., **3**, 1902, (235-240). [1815 1831 0211 0215]. 87

**Uexküll, J. von.** Studien über den Tonus. I. Der biologische Bauplan von *Sipunculus nudus*. Zs. Biol., München, **44**, 1903, (269-344, mit 1 Taf.). [1811 1831]. 88

**Vejdovský, F[rantz] und Mrázek, A[lois].** Umbildung des Cytoplasma während der Befruchtung und Zellteilung. Nach den Untersuchungen am *Rhynchelmis*-Eie. Mit einer Vorbemerkung von F. Vejdoský. Arch. mikr. Anat., Bonn, **62**, 1903, (431-579, mit 6 Taf.). [1815 1831]. 89

**Walker, J. F. r. Lamplugh, G. W.**

**Ward, Henry B[aldwin].** Report of the zoologist. Notes on the leeches of Nebraska. [With bibliography.] [Reprinted from the Report of the State Board of Agriculture for 1901]. Lincoln, Stud. Zool. Lab., Univ. Nebr. No. **51**, 1902, (229-242, with pl.). Separate. 23.5 cm. [1827 gi 1831]. 90

**Watson, A. T.** Observations on the habits of the *Onuphiidae* (Polychæta) and on the internal structures with which they fortify their homes. Liverpool, Trans. biol. Soc., **17**, 1903, (303-318, with 1 pl.). [1807 1819 1831]. 91

**Weed, C. M. and Crossman, R. W.** A laboratory guide for beginners in Zoology. London (Heath & Co.), 1903, (xxiv + 105). [Review], Nature, London, **68**, 1903, (319). [0030 0803 0807 1803 0403]. 92

## 1803 COMPREHENSIVE AND GENERAL WORKS.

**Herdman, W. A.** [Vermes] In: The new biological station at Port Erin, being the 16th annual report of the Liverpool Marine Biology Committee. Liverpool, Proc. biol. Soc., **17**, 1903, (43.).

**Weed, C. M. and Crossman, R. W.** A laboratory guide for beginners in Zoology. London (Heath & Co.), 1903, (xxiv + 105). [Review], Nature, London, **68**, 1903, (319).

## 1807 STRUCTURE.

## GENERAL.

**Augener, Hermann.** Beiträge zur Kenntnis der Gephyreen nach Untersuchung der im Göttinger zoologischen Museum befindlichen Sipunculiden und Echiuriden. Arch. Natg., Berlin, **69**, Bd 1, 1903, (297-371, mit 5 Taf.)

**Boddard, F. E.** [On a (?) new species of *Pareudrilus*]. London, Proc. Zool. Soc., **1903**, 1, (216-219).

**Bykowski, L.** Contributions à l'anatomie des Polychètes sédentaires; matériaux pour servir à la connaissance des néphridies et des organes chloragogènes. (Polonais) Kosmos, Lwów, **28**, 1903, (67-87, av. 1 pl.).

**Fauvel, P.** Les Néphridies. Réponse à M. Cosmovici. Bul. sci. France, Belgique, Paris, **36**, 1902, (167-177).

**Hutton, W. K.** On the anatomy of the Gephyrean *Phaeocolosoma teres* n. sp. London, Proc. Zool. Soc., **1903**, 1, (29-41, with 3 pls.).

**Izuka, Akira.** . . . *Polygordius ijimai* n. sp., described. Annot. Zool. Jap., Tokyo, **4**, 1903, (137-139).

— . . . *Nereis microdontia*, Marenz. (Japanese) Dobuts. Z., Tokyo, **15**, 1903, (427-431).

**Livanow, N.** Untersuchungen zur Morphologie der Hirudineen. Zool. Jahrb., Jena, Abt. f. Anat., **19**, 1903, (29-90, mit 4 Taf.).

**Pierantoni, Umberto.** Studi anatomici su *Michaelsena macrochaeta* Pierant. Mitt. zool. Stat. Neapel, Berlin, **16**, 1903, (409-444, mit 2 Taf.).

**Watson, A. T.** Observations on the habits of the *Onuphiidae* (Polychaeta) and on the internal structures with which they fortify their homes. Liverpool, Trans. biol. Soc., **17**, 1903, (303-318, with 1 pl.).

## TEGUMENT.

**Galvagni, E.** Histologie des Genus *Ctenodrilus* Clap. Wien, Arb. Zool. Inst. Univ., **15**, 1903, (47-80, 2 Taf.).

**Holmgren, Nils.** Bemerkungen zur Schepotieff'schen Abhandlung: Untersuchungen über den feineren Bau der Borsten einiger Chätopoden und Brachio-

poden. Anat. Anz., Jena, **24**, 1903, (205-208).

**Polowzow, Wera.** Ueber kontraktile Fasern in einer Flimmerepithelart und ihre funktionelle Bedeutung. Arch. mikr. Anat., Bonn, **63**, 1903, (365-388, mit 1 Taf.).

**Schepotieff, Alexander.** Untersuchungen über den feineren Bau der Borsten einiger Chätopoden und Brachio-poden. Zs. wiss. Zool., Leipzig, **74**, 1903, (656-710, mit 4 Taf.).

## NERVOUS SYSTEM.

**Poll, Heinrich und Sommer, Alfred.** Ueber phaeochrome Zellen im Centralnervensystem des Blutegels. Arch. Anat. Physiol., Leipzig, Physiol. Abt., **1903**, (549-550).

## COELOM.

**Gineste.** Quelques observations sur les vésicules énigmatiques de la cavité générale du Siponcle. Bordeaux, Actes soc. linn., **58**, 1903, (Proc. verb., CLVIII-CLXXI, av. fig.).

— Etude des urnes libres de la cavité générale du *Sipunculus nudus*. l.c. (Proc. verb., CLXXIV-CLXXXIV, av. fig.).

**Hérubel, Marcel A.** Observations physiologiques et histologiques sur les Géphyriens (dérivés endothéliaux et granules pigmentaires). Paris, C.-R. Acad. sci., **136**, 1903, (971-973).

**Rosa, D.** Il cloragoto tipico degli Oligocheti. Torino, Mem. Acc. Sc., (Ser. 2), **52**, (1901-1902), 1902, (119-144, con tav.): [résumé], Arch. ital. biol., Torino, **37**, 1902, (454-456).

## ALIMENTARY SYSTEM.

**Spieß, Camille.** La structure intime de l'appareil digestif de la sangsue. Verh. Schweiz. Natf. Ges., Aarau, **85**, 1902, (78-79); Arch. Sci. Phys., Genève, (sér. 4), **14**, 1902, (548-552).

— L'appareil digestif de la sangsue (*Hirudo medicinalis*, Lin.) Recherches morphologiques, histologiques et physiologiques. Rev. Suisse Zool., Genève, **11**, 1903, (151-239, av. 3 pls.).

## CIRCULATORY AND RESPIRATORY ORGANS.

**Gnaeste.** Sur la structure histologique des canaux œsophagiens du Siponcle. Bordeaux, Actes soc. linn., **58**, 1903, (Proc.-verb., CIV-CXVIII).

**Johnston, [John] B[lack].** On the blood vessels, their valves and the course of the blood in *Lumbricus* [Studies from the zoological laboratory of West Virginia university, No. **8**, 1903]. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **5**, 1903, (74-84, with text-fig.).

## SPECIAL GLANDS.

**Bergmann, W[ilhy].** Ueber das spätere Schicksal der Zwitterdrüsen von *Hesione sicula*. (Vorläuf. Mitt.). Zool. Anz., Leipzig, **26**, 1903, (415-417).

## EXCRETORY ORGANS.

**Maxiarski, Stanislaw.** Recherches cytologiques sur les organes segmentaires des vers de terre. Arch. polon. biol. méd., Lwów, **2**, 1903, (1-81 av. 3 pls.); Pola. arch. biol. lek., Lwów, **2**, 1903, (1-78, av. 3 pls.).

## 1811 PHYSIOLOGY.

## GENERAL.

**Hérubel, Marcel A.** Observations physiologiques et histologiques sur les Géphyriens (dérivés endothéliaux et granules pigmentaires). Paris, C.-R. Acad. sci., **136**, 1903, (971-973).

**Vexküll, J. von.** Studien über den Tonus. I. Der biologische Bauplan von *Sipunculus nudus*. Zs. Biol., München, **44**, 1903, (269-344, mit 1 Taf.).

## PARTHENOGENESIS.

**Scott, J. W.** Periods of susceptibility in the differentiation of unfertilized eggs of *Amphitrite*. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **5**, 1903, (35-41, with text fig.).

## FUNCTION OF SPECIAL STRUCTURES.

**Bortolotti, Ciro.** Nota preventiva sulla funzione delle cellule cloragogene nei generi *Lumbricus* ed *Allolobophora*. Roma, Rend. Acc. Lincei, (Ser. **5**), **11**, 1902, (449-451).

(N 2-9053)

**Franz, Friedrich.** Ueber den die Blutgerinnung aufhebenden Bestandteil des medicinischen Blutegels [Herudin]. Arch. exper. Path., Leipzig, **49**, 1903, (342-366).

**Rosa, D.** Le chloragogue typique des Oligochètes. Arch. ital. biol., Paris, **37**, 1902, (454-456); Torino, Mem. Acc. Sc., (Ser. **2**), **52**, (1901-1902), 1902, (119-144, con tav.).

## RESPIRATION.

**Bohn, Georges.** Des localisations respiratoires chez les Annelides. Paris, C.-R. soc. biol., **55**, 1903, (306-308).

## REGENERATION.

**Grünberg, Gösta.** Einige Studien über die Regeneration des vorderen Körperendes bei den Oligochaeten. Helsingfors, Comptes rendus du Congrès des Naturalistes et Médecins du Nord tenu à Helsingfors du 7 au 12 juillet 1902, **1903**, VI Section, (16-18).

**Kroeber, Johanna.** An experimental demonstration of the regeneration of the pharynx of *Allolobophora* from endoderm [Reprint from Wood's Holl, Mass., Mar. Biol. Lab. Bull., **2**, 1900, (105-110)] Bryn Mawr, Pa., Coll. Bryn Mawr, Monogr., (Repr. Ser.), **1**, 1901, (105-110).

**Stole, Antonin.** Versuche betreffend die Frage, ob sich auf ungeschlechtlichem Wege die durch mechanischen Eingriff oder das Milieu erworbenen Eigenschaften vererben. Arch. Entw.-Mech., Leipzig, **15**, 1903, (638-668).

## EXPERIMENTAL PHYSIOLOGY.

**Magnus, R[udolf].** Pharmakologische Untersuchungen an *Sipunculus nudus*. Arch. exper. Path., Leipzig, **50**, 1903, (86-122).

## 1815 DEVELOPMENT.

## GENERAL.

**Coupin, Henri.** Les Géphyriens. Nature, Paris, (1<sup>re</sup> sem.), **31**, 1903, (91-92, av. fig.).

**Cowles, R. P.** Notes on the rearing of the larvae of *Polygordius appendiculatus* and on the occurrence of the adult



on the Atlantic coast of America. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **4**, 1903, (125-128).

**Ikeda, Iwaji.** Development of the sexual organs and of their products in *Phoronis*. Annot. Zool. Jap., Tokyo, **4**, 1903, (141-153, with pl.).

**Isuka, Akira.** Observations on the Japanese Palolo, *Ceratocephale osawai*, n. sp. Tokyo, J. Coll. Sci., **17**, Art. 11, 1903, (1-37, with 2 pls.).

### ОТЪМ.

**Vejdovský, F[ranz] und Mrásek, A[lois].** Umbildung des Cytoplasma während der Befruchtung und Zellteilung. Nach den Untersuchungen am *Rhynchelmis*-Eie. Mit einer Vorbemerkung von F. Vejdoský. Arch. mikr. Anat., Bonn, **62**, 1903, (431-579, mit 6 Taf.).

### SPERMATOGENESIS.

**Beddard, F. E.** [On a (?) new species of *Pareudrilus*.] London, Proc. Zool. Soc., **1903**, 1, (219-220).

### FERTILIZATION.

**Vejdovský, F[ranz] und Mrásek, A[lois].** Umbildung des Cytoplasma während der Befruchtung und Zellteilung. Nach den Untersuchungen am *Rhynchelmis*-Eie. Mit einer Vorbemerkung von F. Vejdoský. Arch. mikr. Anat., Bonn, **62**, 1903, (431-579, mit 6 Taf.).

### EMBRYOLOGY.

**Sukatschov, Boris.** Beiträge zur Entwicklungsgeschichte der Hirudineen. II. Ueber die Furchung und Bildung der embryonalen Anlagen bei *Nephele vulgaris* Moqu. Tand. (*Herpobdella atomaria*). Zs. wiss. Zool., Leipzig, **73**, 1903, (321-367, mit 3 Taf.).

**Torrey, John Cutter.** The early embryology of *Thalassema mellita* (Conn.) [Ph.D., Columbia University]. New York, N.Y., Ann. Acad. Sci., **14**, 1903, (165-246, with pl.).

**Treadwell, Aaron L[ouis].** Notes on the nature of "artificial parthenogenesis" in the egg of *Podake obscura*. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **3**, 1902, (235-240).

### METAMORPHOSIS AND LARVAL FORMS.

**Leschke, M.** Beiträge zur Kenntniss der pelagischen Polychaetenlarven der Kieler Fördrde. Wiss. Meeresunters., Kiel, (N. F.), **7**, Abt. Kiel, 1903, (111-136, mit 2 Taf.).

### 1819 ETHOLOGY.

#### GENERAL.

**Bohn, Georges.** De l'indépendance fonctionnelle des zoides d'un Annelide, à propos des phénomènes de rotation présentés par les Hirudinées. Bul. Muséum, Paris, **1903**, (26-30).

— Observations biologiques sur les Arénicoles. l.c. (62-73, av. fig.).

**Bretscher, K.** Beobachtungen über die Oligochaeten der Schweiz. VI. Folge. Rev. Suisse Zool., Genève, **10**, 1902, (1-29, mit 4 figs.).

**Coupin, Henri.** Les Géphyriens. Nature, Paris, (1<sup>er</sup> sem.), **31**, 1903, (91-92, av. fig.).

**Dusserre, C.** Ueber die Einwirkung der Regenwürmer auf die chemische Zusammensetzung des Bodens. Landw. Jahrb. Schweiz, Bern, **16**, 1902, (75-78).

**Eury, J.** Présence d'un lombric dans un œuf de poule. [*Allolobophora fetida*]. Bul. sci. pharm., Paris, **4**, 1902, (99-100).

**Isuka, Akira.** Observations on the Japanese Palolo, *Ceratocephale osawai*, n. sp. Tokyo, J. Coll. Sci., **17**, Art. 11, 1903, (1-37, with 2 pls.).

#### HABITS.

**Gardiner, J. S.** The breaking-up of coral rock by organisms in the Tropics. London, Rep. Brit. Ass., **1902**, (641-655) [Prelim. Abstract], Nature, London, **66**, 1902, (641).

**Watson, A. T.** Observations on the habits of the *Onuphidae* (Polychaeta) and on the internal structures with which they fortify their homes. Liverpool, Trans. biol. Soc., **17**, 1903, (303-818, with 1 pl.).

## SEXUAL RELATIONS.

**Rudolph, Max.** Ueber die Begattung der Regenwürmer. Aus d. Heimat, Stuttgart, 16, 1903, (70-71).

1823 VARIATION AND  
ÆTIOLOGY.

**Lang, Arnold.** Beiträge zu einer Trophocöltheorie. Betrachtungen und Suggestionen über die phylogenetische Ableitung der Blut- und Lymphbehälter, insbesondere der Articulaten. Mit einem einleitenden Abschnitt über die Abstammung der Anneliden. Jenaische Zs. Natw., 38, 1903, (1-373, mit 6 Taf.).

**Stolc, Antonín.** Versuche betreffend die Frage, ob sich auf ungeschlechtlichem Wege die durch mechanischen Eingriff oder das Milieu erworbenen Eigenschaften vererben. Arch. Entw.-Mech., Leipzig, 15, 1903, (638-668).

1827 GEOGRAPHICAL  
DISTRIBUTION.

## a EARTH AS A WHOLE.

**Michaelsen, W.** Die geographische Verbreitung der Oligochaeten. Berlin (R. Friedländer u. S.), 1903, (VI + 186, mit 11 Kart.). 27 cm. 12 M.

## d EUROPE.

## da SCANDINAVIA.

**McIntosh, W. C.** . . . XXV. i. On the *Eunicidae* dredged by H.M.S. "Porcupine" in 1869 and 1870. iii. On Norwegian *Eunicidae* collected by Canon Norman, D.C.L., F.R.S. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (128-166, pls. X-XIII, with 9 text-figs.).

## db RUSSIA IN EUROPE.

**Norman, A. M.** Notes on the natural history of East Finmark. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (281-286).

## de GERMAN EMPIRE.

**Brandes, G[ustav].** Ueber ein Vorkommen von *Hirudo medicinalis* in Thüringen. Zs. Natw., Stuttgart, 76, 1903, (143-144).

(N 2-9053)

**Michaelsen, W.** Oligochaeten. (Hamburgische Elb-Untersuchung.) Hamburg, Jahrb. wiss. Anst., 19, (1901), Beih. 2, 1903, (169-210, mit 1 Taf.).

## de BRITISH ISLANDS.

**Lamplugh, G. W. and Walker, J. F.** On a fossiliferous band at the top of the Lower Greensand near Leighton Buzzard (Bedfordshire). London, Q. J. Geol. Soc., 59, 1903, (234-265).

**Lang, W. D.** On a fossiliferous bed in the Selbornian of Charmouth. Geol. Mag., London, [4], 10, 1903, (388-392, with 1 fig.).

**McIntosh, W. C.** Notes from the Gatty Marine Laboratory, St. Andrews. No. XXIV. Part III. On the British *Eunicidae*. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (553-565).

**Pearcey, F. G.** Notes on the marine deposits of the Firth of Forth, and their relations to its animal life. Glasgow, Trans. Nat. Hist. Soc., 6, 1903, (217-251, with map).

**Petch, T.** The marine fauna of the Humber district and the Holderness coast. Hull, Trans. Sci. F. Nat. Cl., 3, 1903, (27-41).

——— Marine Zoology at Filey. Naturalist, London, 1903, (351).

**Shrubsole, A.** On the probable source of some of the pebbles of the Triassic Pebble-beds of South Devon and of the Midland Counties. London, Q. J. Geol. Soc., 59, 1903, (311-333).

**Todd, R. A.** Notes on the invertebrate fauna and fish-food of the bays between the Start and Exmouth. Plymouth, J. Mar. Biol. Ass., 6, No. 4, 1903, (541-561).

## df FRANCE.

**Saint-Joseph, baron de.** Liste des Annélides polychètes trouvées par M. Adrien Dollfus à Saint-Raphaël, en juin 1902. Feuille jeunes natural., Paris (sér. 4), 33, 1903, (202).

## di SWITZERLAND.

**Bretschger, K.** Beobachtungen über die Oligochaeten der Schweiz. VI Folge. Rev. Suisse Zool., Genève, 10, 1902, (1-29, mit figs.); VII Folge. I.e. 11, 1903, (1-21, mit 1 pl.).

N 2

**Bretscher, K.** Oligochaeten aus Graubünden. *l.c.* (113-122).

*do* BALTIC AND ISLANDS.

**Leschke, M.** Beiträge zur Kenntniss der pelagischen Polychaetenlarven der Kieler Förde. *Wiss. Meeresunters.*, Kiel, (N.F.), **7**, Abt. Kiel, 1903, (111-136, mit 2 Taf.).

*e* ASIA.

*ea* ASIATIC RUSSIA.

**Gariaev, V. P.** Bericht über eine Reise zur Untersuchung der Evertbratenfauna des Baikal See's im Sommer 1900 u. 1901. (Russ.) St. Petersburg, Trd. Troick-Klucht. Otd. Russ. Geogr. Obsč. **V**, 2, 1902, [1903], (27-48, mit 1 Karte).

**Moore, John Percy.** Polychaeta from the coastal slope of Japan and from Kamchatka and Behring sea. Philadelphia, Pa., *Proc. Acad. Nat. Sci.*, **55**, 1903, (401-490, with pl.).

*eb* CHINA AND DEPENDENCIES.

**Michaelsen, W.** Eine neue Haplotaxiden-Art und andere Oligochaeten aus dem Telezkischen See im nördlichen Altai. Hamburg, *Verh. natw. Ver.*, (3 F.), **10**, (1902), 1903, (1-7).

*ec* JAPANESE ISLANDS.

**Moore, John Percy.** Polychaeta from the coastal slope of Japan and from Kamchatka and Bering sea. Philadelphia, Pa., *Proc. Acad. Nat. Sci.*, **55**, 1903, (401-490, with pl.).

*ef* BRITISH INDIA.

**Shipley, A. E.** On the Gephyrea. Report to the Government of Ceylon on the Pearl Oyster Fisheries of the Gulf of Manaar, by W. A. Herdman, Part I, No. iii, (169-176, 1 pl.).

*eg* MALAY PENINSULA.

**Horst, R.** . . . Siboga-expedition. New species of *Euphrosyne*. . . . Leiden, *Notes Mus. Jentink*, **23**, 1903, (213-222).

*f* AFRICA.

**Beddard, F. E.** On a new genus and two new species of earthworms of the family *Eudrilidae*, with some notes upon other African Oligochaeta. London, *Proc. Zool. Soc.*, **1903**, **1**, (210-222, figs. 35-38).

*fb* NORTH EAST AFRICA.

**Michaelsen, W.** Die Oligochäten Nordost-Afrikas, nach den Ausbeuten der Herren Oscar Neumann und Carlo Freiherr von Erlanger. *Zool. Jahrb. Jena, Abt. f. Syst.*, **18**, 1903, (435-556, mit 4 Taf.).

*ff* EAST AFRICA.

**Crossland, C.** On the marine fauna of Zanzibar and British East Africa, from collections made by Cyril Crossland in the years 1901 and 1902. Polychaeta. London, *Proc. Zool. Soc.*, **1903**, **1**, (169-176, pls. XVI, XVII).

——— Polychaeta, II. *l.c.* **2**, (129-144, pls. XIV, XV, text-figs. 12-15).

**Forbes, H. O.** Leeches and worms. *Nat. Hist. Sokotra*, (443).

*g* NORTH AMERICA.

*gb* CANADA.

**McIntosh, W. C.** XXV. II. On Canadian *Eumicidae* dredged by Dr. Whiteaves, of the Canadian Geological Survey, in 1871-1873. *Ann. Mag. Nat. Hist.*, London, (Ser. 7), **12**, 1903, (128-166, pls. X-XII, with 9 text-figs.).

*gg* NORTH EASTERN UNITED STATES.

**Clarke, John M[ason].** Some Devonian worms. Albany Univ., N.Y., *Bull. St. Mus.*, No. **69**, 1903, (1234-1238, with pl.).

**Cowles, R. P.** Notes on the rearing of the larvae of *Polygordius appendiculatus* and on the occurrence of the adult on the Atlantic coast of America. Wood's Holl, Mass., *Mar. Biol. Lab. Bull.*, **4**, 1903, (125-128); Baltimore, Md., Johns Hopkins Univ. *Cir.*, **22**, 1903, (21-22, with pl.).

**Moore, J[ohn] Percy.** The Hirudinea of Illinois. [With bibliography.] Urbana, Bull. Ill. Lab. Nat. Hist., **5**, 1901, (479-547, with pl.); [reprint], Philadelphia, Cont. Zool. Lab., Univ. Pa., **1901**, 1902, (479-547, with pl.).

gh SOUTH EASTERN UNITED STATES.

**Cowles, R. P.** Notes on the rearing of the larvae of *Polygordius appendiculatus* and on the occurrence of the adult on the Atlantic coast of America. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **4**, 1903, (125-128); Baltimore, Md., Johns Hopkins Univ. Cir., **22**, 1903, (21-22, with pl.).

gi WESTERN UNITED STATES.

**Ward, Henry B[aldwin].** Report of the zoologist. Notes on the leeches of Nebraska. [With bibliography.] Reprinted from the Report of the State Board of Agriculture for 1901. Lincoln, Stud. Zool. Lab., Univ. Nebr., No. **51**, 1902, (229-242, with pl.). Separate. 23.5 cm.

i AUSTRALASIA.

ia NEW GUINEA WITH ISLANDS FROM WALLACE'S LINE.

**Collin, Ant.** Verzeichniss der von Professor R. Semon bei Amboina und Thursday Island gesammelten Polychäten. Jena, Denkschr. med. Ges., **8**, 1903, (739-742).

**Horst, R.** . . . Siboga - expedition. New species of *Euphrosyne* . . . Leiden, Notes Mus. Jentink, **23**, 1903, (213-222).

ie NEW SOUTH WALES.

**Kesteven, H. Leighton.** A new species of *Dendrostoma*. Sydney, N.S.W., Rec. Austr. Mus., **5**, 1903, (69-73, with 1 pl. and 1 text fig.).

ik NEW ZEALAND.

**Benham, W. B.** On some new species of aquatic Oligochaeta from New Zealand. London, Proc. Zool. Soc., **1903**, **2**, (202-232, pls. XXIV-XXVI).

— On a new species of earthworm from Norfolk Island. Wellington,

Trans. N. Zeal. Inst., **35**, 1903, (273-274).

**Benham, W. B.** On an earthworm [*Notiodrilus aucklandicus*] from Auckland Islands. l.c. (275-277).

— On the old and some new species of earthworms belonging to the genus *Plagiochaeta*. l.c. (277-290).

m INDIAN OCEAN.

ma OCEAN AND ISLANDS N. OF EQUATOR.

**Beddard, F. E.** The earthworms of the Maldives and Laccadive Islands. [Gardiner's] Fauna and Geography of the Maldives and Laccadive Archipelagoes, **1**, (374-375).

n PACIFIC.

nc BERING SEA.

**Moore, J[ohn] Percy.** Polychaeta from the coastal slope of Japan and from Kamchatka and Bering Sea. Philadelphia, Pa., Proc. Acad. Nat. Sci., **55**, 1903, (401-490, with pl.).

## 1831 TAXONOMY AND SYSTEMATIC.

### GENERAL.

**Forbes, H. O.** Leeches and worms. Nat. Hist. Sokotra, **1903**, (443):

### ARCHIANNELIDA.

*Polygordius appendiculatus*, rearing of larvae. Atlantic coast. **Cowles, R. P.** Baltimore, Md., Johns Hopkins Univ. Cir., **22**, 1903, (21-22, with pl.); Wood's Holl, Mass., Mar. Biol. Lab. Bull., **4**, 1903, (125-128).

— *ijimai* n. sp. **Isuka, A.** Annot. Zool. Jap., Tokyo, **4**, 1903, (137-139).

### POLYCHAETA.

#### GENERAL.

**Bohn, G.** Observations biologiques sur les Arénicoles. Bul. Muséum, Paris, **1903**, (62-73, av. fig.).

**Bykowiak, L.** Contributions à l'anatomie des Polychètes sédentaires. Matériaux pour servir à la connaissance des néphridies et des organes chloragènes. (Polonais) Kosmos, Lwów, 23, 1903, (67-87, av. 1 pl.).

**Collin, Ant.** Verzeichniss der von Professor R. Semon bei Amboina und Thursday Island gesammelten Polychäten. Jena, Denkschr. med. Ges., 8, 1903, (739-742).

**Crossland, C.** On the marine fauna of Zanzibar and British East Africa, from collections made by Cyril Crossland in the years 1901 and 1902. Polychaeta. London, Proc. Zool. Soc., 1903, 1, (169-176, pls. XVI-XVII).

——— *Eunicidae* from Zanzibar and British East Africa collected by Cyril Crossland 1901 and 1902. *I. c.* 2, (129-144, pls. XIV, XV, text figs. 12-15).

**McIntosh.** Notes from the Gatty Marine Laboratory, St. Andrews. No. XXV. I. On the *Eunicidae* dredged by H.M.S. "Porcupine" in 1869 and 1870. II. On Norwegian *Eunicidae* collected by Canon Norman, D.C.L., F.R.S. III. On Canadian *Eunicidae* dredged by Dr. Whiteaves, of the Canadian Geological Survey in 1871-73. *Ann. Mag. Nat. Hist.*, London, (Ser. 7), 12, 1903, (128-164).

**Moore, J. P.** Polychaeta from the coastal slope of Japan and from Kamchatka and Bering sea. Philadelphia, Pa., Proc. Acad. Nat. Sci., 55, 1903, (401-490, with pl.).

**Norman, A. M.** [Polychaeta] In: Notes on the natural history of East Finmark. *Ann. Mag. Nat. Hist.*, London, (Ser. 7), 11, 1903, (280-286).

**Pierantoni, [U.]** Sui Syllidi gestanti del Golfo di Napoli. *Mon. zool. ital.*, Firenze, 13, 1902, (Supplemento), (40-42).

**Saint-Joseph, baron de.** Liste des Annélides polychètes trouvés par M. Adrien Dollfus à Saint-Raphaël, en juin 1902. Feuille jeunes natural., Paris (sér. 4), 33, 1903, (202).

**Watson, A. T.** Observations on the habits of the *Onuphidae* (Polychaeta) and on the internal structures with which they fortify their homes. *Liverpool, Trans. biol. Soc.*, 17, 1903, (303-318, with 1 pl.).

## SPECIAL.

*Amphitrite*, parthenogenesis. **Scott, J. W.** Wood's Holl, Mass., Mar. Biol. Lab. Bull., 5, 1903, (35-41, with text fig.).

——— *bifurcata* n. sp. **Moore, J. P.** Philadelphia, Pa., Proc. Acad. Nat. Sci., 55, 1903, (401-490).

*Aricia fimbriata* n. sp. **Moore, J. P.** *I. c.* (401-490).

*Axiothea campanulata* n. sp. **Moore, J. P.** *I. c.* (401-490).

*Ceratocephale osawai* n. sp., observations on. **Isuka, A.** Tokyo, J. Coll. Sci., 17, Art. 11, 1903, (1-37, with 2 pls.).

*Chaetozone spinosa* n. sp. **Moore, J. P.** Philadelphia, Pa., Proc. Acad. Nat. Sci., 55, 1903, (401-490).

*Cirratulus gibbosus* n. sp. **Moore, J. P.** *I. c.* (401-490).

*Clymene mirabilonga* n. sp. **Moore, J. P.** *I. c.* (401-490).

*Ctenodrilus*, Histologie. **Galvagni, E.** Wien, Arb. Zool. Inst. Univ., 15, 1903, (47-80, 2 Taf.).

*Drilonereis canadensis* n. sp. Gulf of St. Lawrence. **McIntosh.** *Ann. Mag. Nat. Hist.*, London, (Ser. 7), 12, 1903, (161-164, 1 text fig.).

*Eumidia caeca* n. sp. **Moore, J. P.** Philadelphia, Pa., Proc. Acad. Nat. Sci., 55, 1903, (401-490).

*Eunice* nn. spp. **Moore, J. P.** *I. c.* (401-490).

——— sp. description. **McIntosh.** *Ann. Mag. Nat. Hist.*, London, (Ser. 7), 12, 1903, (155-158, 1 text fig.).

——— *jeffreysii* n. sp. **Tangiers Bay.** Description and allied forms. **McIntosh.** *I. c.* (137-146).

*Euphrosyne* nn. spp. Siboga-expedition. **Horst, R.** Leiden, Notes Mus. Jentink, 23, 1903, (213-222).

*Goniada* nn. spp. **Moore, J. P.** Philadelphia, Pa., Proc. Acad. Nat. Sci., 55, 1903, (401-490).

*Hesione sicula*, das spätere Schicksal der Zwitterdrüsen. **Bergmann, W.** Zool. Anz., Leipzig, 26, 1903, (415-417).

*Hylosynda* nn. spp. **Moore**, J. P. Philadelphia, Pa., Proc. Acad. Nat. Sci., **55**, 1903, (401-490).

*Laetmatonice pellucida* n. sp. **Moore**, J. P. l.c. (401-490).

*Laranda robusta* n. sp. **Moore**, J. P. l.c. (401-490).

*Lepidonotus* nn. spp. **Moore**, J. P. l.c. (401-490).

*Loimia arborea* n. sp. **Moore**, J. P. l.c. (401-490).

*Lumbriconereis* nn. spp. **McIntosh**. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (146-149, 158-159).

*Maldane coronata* n. sp. **Moore**, J. P. Philadelphia, Pa., Proc. Acad. Nat. Sci., **55**, 1903, (401-490).

*Marphysa* nn. spp., *M. mossambica* Peters. Zanzibar. **Crossland**, C. London, Proc. Zool. Soc., **1903**, 2, (135-143).

*Nephtys brachycephala* n. sp. **Moore**, J. P. Philadelphia, Pa., Proc. Acad. Nat. Sci., **55**, 1903, (401-490).

*Nereis* nn. spp. **Moore**, J. P. l.c. (401-490).

—— *mictodonta* Marenz, notes. (Japanese) **Iruka**, A. Dobuts. Z., Tokyo, **15**, 1903, (427-431).

*Nicomache* (?) *inornata* n. sp. **Moore**, J. P. Philadelphia, Pa., Proc. Acad. Nat. Sci., **55**, 1903, (401-490).

*Ninoe kinbergi* Ehlers. **McIntosh**. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (159-161, 2 text-figs.).

—— *palmata* n. sp. **Moore**, J. P. Philadelphia, Pa., Proc. Acad. Nat. Sci., **55**, 1903, (401-490).

*Northia geophiliiformis* n. sp. **Moore**, J. P. l.c. (401-490).

*Notocirrus zonata* n. sp. **Moore**, J. P. l.c. (401-490).

*Onuphis cirrobranchiata* n. sp. **Moore**, J. P. l.c. (401-490).

—— (*Diopatra*) *brevibrachiata* Ehlers? description and allied species. **McIntosh**. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (133-136).

—— *quadricuspis* Sars., description and allied species. **McIntosh**, l.c. (149-155, 1 text fig.).

*Paranorthia* n. gen., *P. brevicornuta* n. sp. **Moore**, J. P. Philadelphia, Pa., Proc. Acad. Nat. Sci., **55**, 1903, (401-490).

*Phyllochaetopterus* nn. spp. Zanzibar and British East Africa. **Crossland**, C. London, Proc. Zool. Soc., **1903**, 1, (172-175, pls. XVI-XVII).

*Podake obscura*. **Treadwell**, A. L. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **3**, 1902, (235-240).

*Polymnia nesidensis* (Del. Ch.) Marenz. var. *japonica* n. var. **Moore**, J. P. Philadelphia, Pa., Proc. Acad. Nat. Sci., **55**, 1903, (401-490).

*Polynoe semierma* n. sp. **Moore**, J. P. l.c. (401-490).

*Restio* n. gen., *R. aenus* n. sp. **Moore**, J. P. l.c. (401-490).

*Scalesetosus formosus* n. sp. **Moore**, J. P. l.c. (401-490).

*Scionella* n. gen., *S. japonica* n. sp. **Moore**, J. P. l.c. (401-490).

*Terebellides stroemi* Sars. var. *japonica* n. var. **Moore**, J. P. l.c. (401-490).

*Trichobranchus bibranchiatus* n. sp. **Moore**, J. P. l.c. (401-490).

## OLIGOCHAETA.

### GENERAL.

**Beddard**, F. E. The earthworms of the Maldives and Laccadive Islands. [Gardiner's] Fauna and Geography of the Maldives and Laccadive Archipelagoes, **1**, (374-375).

**Bretschger**, K. Beobachtungen über die Oligochaeten der Schweiz. VI, VII Folge. Rev. Suisse Zool., Genève, **10**, 1902, (1-29, mit 4 figs.); **11**, 1903, (1-21, mit 1 Taf.).

—— Oligochaeten aus Graubünden. l.c. (113-122).

**Dussere**, A. Ueber die Einwirkung der Regenwürmer auf die chemische Zusammensetzung des Bodens. Landw. Jahrb. Schweiz, Bern, **16**, 1902, (75-78).

**Forbes**, H. O. Leeches and worms. Nat. Hist. Sokotra, (443).

**Gariaev**, V. P. Evertebratenfauna des Baikal-Sees. (Russ.). St. Petersburg, Trd. Troick-Kiacht. Otd. Russ. Geogr. Obsč., **V**, 2, 1902, [1903], (27-48, mit 1 Karte).

**Grünberg, G.** Einige Studien über die Regeneration des vorderen Körperendes bei den Oligochaeten. Helsingfors, Comptes rendus du Congrès des Naturalistes et Médecins du Nord tenu à Helsingfors du 7 au 12 juillet 1902, 1903, VI Section, (16-18).

**Mastaraki, Stanislaw.** Recherches cytologiques sur les organes segmentaires des vers de terre. Arch. polon. biol. méd., Lwów, 2, 1903, (1-81, av. 3 pls.); Pol. arch.-biol. lek., Lwów, 2, 1903, (1-78, av. 3 pls.).

**Michaelsen, W.** Die Oligochaeten Nordost-Afrikas, nach den Ausbeuten der Herren Oscar Neumann und Carlo Freiherr von Erlanger. Zool. Jahrb., Jena, Abt. f. Syst., 18, 1903, (435-556, mit 4 Taf.).

——— Oligochaeten. (Hamburgische Elb-Untersuchung.) Hamburg, Jahrb. wiss. Anst., 19, (1901), Beih. 2, 1903, (169-210, mit 1 Taf.).

——— Eine neue Haplotaxiden-Art und andere Oligochaeten aus dem Telezkischen See im Nördlichen Altai. Hamburg, Verh. natw. Ver., (3 F.), 10, (1902), 1903, (1-7).

——— Die geographische Verbreitung der Oligochaeten. Berlin (R. Friedländer u. S.), 1903, (VI + 186, mit 11 Karte). 27 cm. 12 M.

**Rosa, D.** . . . Oligocheti: il cloragogo tipico [di essi]. Torino, Mem. Acc. Sc., (Ser. 2), 52, (1901-1902), 1902, (con. tav.); [résumé], Arch. ital. biol., Torino, 37, 1902, (454-456).

#### SPECIAL.

**Achaeta maorica** n. sp. New Zealand. **Benham, W. B.** London, Proc. Zool. Soc., 1903, 2, (221-223, pl. XXV, figs. 23, 24).

——— **vejdoskyi** n. sp. Suisse. **Bretscher, K.** Rev. Suisse Zool., Genève, 10, 1902, (27).

**Allolobophora**, nota preventiva sulla funzione delle cellule cloragogene. **Bortolotti, C.** Roma, Rend. Acc. Lincei, (Ser. 5), 11, 1902, (449-451).

——— **düggelii** n. sp. Suisse. **Bretscher, K.** Rev. Suisse Zool., Genève, 11, 1903, (20).

——— **foetida**, dans un œuf de poule. **Eury, J.** Bul. sci. pharm., Paris, 4 1902, (99-100).

**Alma budgetti** n. sp., closely allied to **A. stuhlmanni**. Victoria Nyanza. **Beddard, F. E.** London, Proc. Zool. Soc., 1903, 1, (221-222).

**Bettonia** n. gen., **B. lagariensis** n. sp. British Central Africa. **Beddard, F. E.** l.c. (213-216, figs. 36, 37).

**Dero incisa** n. sp. **Michaelsen, W.** Hamburg, Jahrb. wiss. Anst., 19, 1901, Beih. 2, 1903, (182, fig. 3).

**Dichogaster** nn. spp. Nordost-Afrika. **Michaelsen, W.** Zool. Jahrb., Jena, Abt. f. Syst., 18, 1903, (443-458, pl. XXIV, figs. 1-11).

——— **greeffi** n. sp. **Michaelsen, W.** Hamburg, Jahrb. wiss. Anst., 19, (1901), Beih. 2, 1903, (20, figs. 7, 8).

**Diporocheata aquatica** n. sp. New Zealand. **Benham, W. B.** London, Proc. Zool. Soc., 1903, 2, (226-228, pl. XXVI, figs. 29-31).

**Dracida burchardi** n. sp. **Michaelsen, W.** Hamburg, Jahrb. wiss. Anst., 19, (1901), Beih. 2, 1903, (7).

**Eisenia** nn. spp. **Michaelsen, W.** l.c. (40, 41).

**Eminoscolex** nn. spp. Nordost-Afrika. **Michaelsen, W.** Zool. Jahrb., Jena, Abt. f. Syst., 18, 1903, (482-495, pl. XXV, figs. 26-34).

**Enchytraeus** nn. spp. Suisse. **Bretscher, K.** Rev. Suisse Zool., Genève, 10, 1902, (18, 19).

——— **simulans** n. sp. New Zealand. **Benham, W. B.** London, Proc. Zool. Soc., 1903, 2, (219-221, pls. XXV, XXVI, figs. 25-28).

**Eudichogaster** n. gen., **E. ashicorthi** n. sp. **Michaelsen, W.** Hamburg, Jahrb. wiss. Anst., 19, (1901). Beih. 2, 1903, (14).

**Eudrilus kamerunensis** n. sp. **Michaelsen, W.** l.c. (28, fig. 6).

**Fredericia** nn. spp. Suisse. **Bretscher, K.** Rev. Suisse Zool., Genève, 10, 1902, (19, 20, 24-26); 11, 1903, (18, 117).

**Gardullaria** n. gen. (**Eminoscolex**), **G. armata** n. sp. Nordost-Afrika. **Michaelsen, W.** Zool. Jahrb., Jena, Abt. f. Syst., 18, 1903, (498, pl. XXV, figs. 23-25).

**Glyphidrilus malayanus** n. sp. **Michaelsen, W.** Hamburg, Jahrb. wiss. Anst., 19, (1901), Beih. 2, 1903, (35).

*Haplotaxis heterogyne* n. sp. New Zealand. **Benham**, W. B. London, Proc. Zool. Soc., 1903, 2, (223-226).

*Helodrilus* nn. spp. **Michaelsen**, W. Hamburg, Jahrb. wiss. Anst., 19, (1901), Beih. 2, 1903, (43, 47).

*Henlea* nn. spp. **Bretscher**, K. Rev. Suisse Zool., Genève, 10, 1902, (15); 11, 1903, (115).

*Iridodrilus preussi* n. sp. **Michaelsen**, W. Hamburg, Jahrb. wiss. Anst., 19, (1901), Beih. 2, 1903, (23, figs. 4, 5).

*Kaffania* n. gen. (— *Eudrilus*), K. *neumanni* n. sp. Nordost-Afrika. **Michaelsen**, W. Zool. Jahrb. Jena, Abt. f. Syst., 18, 1903, (480, pl. XXIV, fig. 17).

*Limnodrilus* nn. spp. and description of immature specimens. New Zealand. **Benham**, W. B. London, Proc. Zool. Soc., 1903, 2, (213-219, pls. XX-XXV, figs. 10-22).

— *neucaensis* n. sp. **Michaelsen**, W. Hamburg, Jahrb. wiss. Anst., 19, (1901), Beih. 2, 1903, (3, fig. 12).

*Lumbricus*, nota preventiva sulla funzione delle cellule cloragogene. **Bortolotti**, C. Roma, Rend. Acc. Lincei, (Ser. 5), 11, 1902, (449-451).

— blood vessels. **Johnston**, J. B. Wood's Holl, Mass., Mar. Biol. Lab. Bull., 5, 1903, (74-84, with text figs.).

— sp., Begattung. **Rudolph**, M. Aus. d. Heimat, Stuttgart, 16, 1903, (70-71).

*Malodrilus* n. gen. (— *Eudrilus*), M. *neumanni*, M. *gardullaensis* nn. spp. Nordost-Afrika. **Michaelsen**, W. Zool. Jahrb. Jena, Abt. f. Syst., 18, 1903, (471, pl. XXIV, figs. 14-16).

*Megascolec laingii* n. sp., from Norfolk Island. **Benham**, W. B. Wellington, Trans. N. Zeal. Inst., 35, 1903, (273-274).

*Mesenchytraeus tigrina* n. sp. Suisse. **Bretscher**, K. Rev. Suisse Zool., Genève, 10, 1902, (16).

*Metschiana* n. gen. (— *Platydrilus*), M. *suctorica* n. sp. Nordost-Afrika. **Michaelsen**, W. Zool. Jahrb., Jena, Abt. f. Syst., 18, 1903, (463, pl. XXV, figs. 21, 22).

*Michaelseena macrochaeta* Pierant., studii anatomici. **Pierantoni**, U. Mitt. zool. Stat. Neapel, Berlin, 16, 1903, (409-444, mit 2 Taf.).

*Microchaetus griseus* n. sp. **Michaelsen**, W. Hamburg, Jahrb. wiss. Anst., 19, (1901), Beih. 2, 1903, (33).

*Naidium bilobatum* n. sp. **Bretscher**, K. Rev. Suisse Zool., Genève, 11, 1903, (11).

*Neumannella* n. gen. (~ *Gardullaria*), N. *siphonochaeta*, N. *tenuis*, N. *pallida*, N. *gracilis*. nn. spp. Nordost-Afrika. **Michaelsen**, W. Zool. Jahrb., Jena, Abt. f. Syst., 18, 1903, (501-509, pl. XXV, figs. 35, 36, 39, 40, 45, 47, 48).

*Notodrilus aucklandicus* n. sp. Auckland Islands. **Benham**, W. B. Wellington, Trans. N. Zeal. Inst., 35, 1903, (275-277).

*Pareudrilus*, anatomy, especially of reproductive organs. **Boddard**, F. E. London, Proc. Zool. Soc., 1903, 1, (216-221, fig. 38).

*Pelodrilus ignatovi* n. sp. aus dem Telezkischen See im nördlichen Altai. **Michaelsen**, W. Hamburg, Verh. natw. Ver., (3. F.), 10 (1902), 1903, (1-7).

*Pheretima dunckeri* n. sp. **Michaelsen**, W. Hamburg, Jahrb. wiss. Anst., 19, (1901), Beih. 2, 1903, (9).

*Phreodrilus* nn. spp. New Zealand. **Benham**, W. B. London, Proc. Zool. Soc., 1903, 2, (207-208).

*Plagiochaeta* nn. spp. with notes on some old species. **Benham**, W. B. Wellington, Trans. N. Zeal. Inst., 35, 1903, (277-290).

*Plutellus lacustris* n. sp. New Zealand. **Benham**, W. B. London, Proc. Zool. Soc., 1903, 2, (228-230, pl. XXVI, figs. 32-40).

*Pontodrilus laccadivensis* n. sp. **Boddard**, F. E. Fauna Mald. Laccad. Arch., 1, (374).

*Pygmaeodrilus neumanni* n. sp. Nordost-Afrika. **Michaelsen**, W. Zool. Jahrb., Jena, Abt. f. Syst., 18, 1903, (460, pl. XXIV, fig. 13).

*Rhynchelmis limosella*, Umbildung des Cytoplasma während der Befruchtung und Zellteilung. **Vejdovsky**, F. und **Mrázek**, A. Arch. mikr. Anat., Bonn, 62, 1903, (431-579, mit 6 Taf.).



*Stuhlmannia asymmetrica* n. sp. Nordost-Afrika. **Michaelsen**, W. Zool. Jahrb., Jena, Abt. f, Syst., **18**, 1903, (467, pl. XXIV, fig. 12).

———— *michaelseni* n. sp. Africa. **Beddard**, F. E. London, Proc. Zool. Soc., **1903**, 1, (210–213, fig. 35).

*Taupodrilus* n. gen., *T. simplex* n. sp. New Zealand. **Benham**, W. B. l.c. 2, (209–213, pl. XXIV, figs. 1–9).

*Teledrilus* nn. spp. Nordost-Afrika. **Michaelsen**, W. Zool. Jahrb., Jena, Abt. f. Syst., **18**, 1903, (512–541, pl. XXVI, figs. 41–44, 49, pl. XXVII, figs. 50–60).

*Teletoreulus* n. gen. (*Teledrilus*), *T. neumanni* n. sp. Nordost-Afrika. **Michaelsen**, W. l.c. (548, pl. XXVI, figs. 37, 38).

*Thamnodrilus* nn. spp. **Michaelsen**, W. Hamburg, Jahrb. Wiss. Anst., **19**, (1901), Beih. 2, 1903, (30, 31).

*Tubifex*, description of immature specimens. New Zealand. **Benham**, W. B. London, Proc. Zool. Soc., **1903**, 2, (219).

*Vejdovskyella* n. nom. = *Bohemilla* Vojd. **Michaelsen**, W. Hamburg, Jahrb. wiss. Anst., **19**, (1901), Beih. 2, 1903, (184).

*Zapotesia keiteli* n. sp. **Michaelsen**, W. l.c. (16, fig. 3).

## GEPHYREA.

### GENERAL.

**Augener**, Hermann. Beiträge zur Kenntnis der Gephyreen nach Untersuchung der im Göttinger zoologischen Museum befindlichen Sipunculiden und Echiuriden. Arch. Natg., Berlin, **69**, Bd. 1, 1903, (297–371, mit 5 Taf.).

**Coupin**, H. Les Géphyriens. Nature, Paris, (1<sup>er</sup> sem.), **31**, 1903, (91–92, av. fig.).

**Gineste**. Sur la structure histologique des canaux œsophagiens du Siponcle. Bordeaux, Actes soc. linn., **58**, 1903, (Proc.-verb., CIV–CXVIII).

———— Quelques observations sur les vésicules énigmatiques de la cavité générale du Siponcle. l.c. (Proc.-verb., CLVIII–CLXXI, av. fig.).

**Hérubel**, M. A. Observations physiologiques et histologiques sur les Géphy-

riens (dérivés endothéliaux et granules pigmentaires). Paris, C.-R. Acad. sci., **136**, 1903, (971–973).

**Shipley**, A. E. On the Gephyrea. Report to the Government of Ceylon on the Pearl Oyster Fisheries of the Gulf of Manaar, by W. A. Herdman. Part I, No. III, (169–176, 1 pl.).

### SPECIAL.

*Aspidosiphon* nn. spp. **Augener**, H. Arch. Natg., Berlin, **69**, Bd 1, 1903, (322–328).

*Centrosiphon* n. gen., *C. herdmani* n. sp. **Shipley**, A. E., in Herdman. Report on the Pearl Oyster Fisheries. Part 1, No. III, (169–176, 1 pl.).

*Dendrostoma dehamata* n. sp. New South Wales. **Kesteven**, H. L. Sydney, N.S.W., Rec. Austr. Mus., **5**, 1903, (69–73, with 1 pl. and 1 text fig.).

*Phascolosoma schüttei* n. sp. **Augener**, H. Arch. Natg., Berlin, **69**, Bd 1, 1903, (335–337, pls. XVII, XVIII, figs. 17, 18).

———— *teres* n. sp. anatomy. Firth of Clyde. **Hutton**, W. K. London, Proc. Zool. Soc., **1903**, 1, (39).

*Phymosoma thomense* n. sp. **Augener**, H. Arch. Natg., Berlin, **69**, Bd 1, 1903, (343, pl. XVIII, fig. 19).

*Sipunculus nudus*, note fisiologiche. **Enriques**, [P.]. Mon. zool. ital., Firenze, **13**, 1902, (Supplemento), (51–52).

———— les urnes libres de la cavité générale. **Gineste**. Bordeaux, Actes soc. linn., **58**, 1903, (Proc.-verb., CLXXIV–CLXXXIV, av. fig.).

———— Pharmakologische Untersuchungen. **Magnus**, R. Arch. exper. Path., Leipzig, **50**, 1903, (86–122).

———— biologischer Bauplan. **Uexküll**, J. von. Zs. Biol., München, **44**, 1903, (269–344, mit 1 Taf.).

*Thalassema mellita*, embryology. **Torrey**, J. C. New York, N.Y., Ann. Acad. Sci., **14**, 1903, (165–246, with pl.).

## Phoronis.

*Phoronis*, sexual organs. Ikeda, I. Annot. Zool. Jap., Tokyo, 4, 1903, (141-153, with pl.).

ueber den richtigen Namen der Gattung. Poche, F. Zool. Anz., Leipzig, 26, 1903, (466-467).

## HIRUDINEA.

## GENERAL.

Bohn, G. De l'indépendance fonctionnelle des zoïdes d'un Annelide à propos des phénomènes de rotation présentés par les Hirudinées. Bul. Muséum, Paris, 1903, (26-39).

Forbes, H. O. Leeches and worms. Nat. Hist. Sokotra, (443).

Livanow, N. Untersuchungen zur Morphologie der Hirudineen. Zool. Jahrb., Jena, Abt. f. Anat., 19, 1903, (29-90, mit 4 Taf.).

Moore, J. P. The Hirudinea of Illinois. [With bibliography.] Urbana, Bull. Ill. Lab. Nat. Hist., 5, 1901, (479-547, with pl.); [reprint], Philadelphia, Cont. Zool. Lab., Univ. Pa., 1901, 1902, (479-547, with pl.).

Ward, H. B. Report of the Zoologist. Notes on the leeches of Nebraska. [With bibliography.] [Reprinted from the Report of the State Board of Agriculture for 1901.] Lincoln, Stud. Zool. Lab., Univ. Nebr., No. 51, 1902, (229-242, with pl.). Separate. 23.5 cm.

## SPECIAL.

*Hirudo medicinalis*. Brandes, G. Zs. Natw., Stuttgart, 76, 1903, (143-144).

ueber den die Blutgerinnung aufhebenden Bestandteil. Franz, F. Arch. exper. Path., Leipzig, 49, 1903, (342-366).

phaeochrome Zellen im Centralnervensystem. Poll, H. und Sommer, A. Arch. Anat. Physiol., Leipzig, Physiol. Abt., 1903, (549-550).

la structure intime de l'appareil digestif. Spiess, C. Verh. Schweiz. Natf. Ges., Aarau, 85, 1902, (78-79); Arch. Sci. Phys., Genève,

(ser 4), 14, 1902, (548-552); Rev. Suisse Zool., Genève, 11, 1903, (151-239, av. 3 pls.).

*Nephelis vulgaris*, Embryologie. Sukatschoff, B. Zs. wiss. Zool., Leipzig, 73, 1903, (321-367, mit 3 Taf.).

*Placobdella catenigera*, geschlechtliche Entwicklung von *Haemogregarina stepanovi*. Siegel, Arch. Protistenkunde, Jena, 2, 1903, (339-342).

## LIST OF NEW GENERA AND SPECIES.

- ACHAETA [Oligochaeta].  
 — *maorica*. Benham. 4.  
 — *rejzovskyi*. Bretscher. 14.
- ALLOLOBOPHORA [Oligochaeta].  
 — *düggelii*. Bretscher. 14.
- ALMA [Oligochaeta].  
 — *budgetti*. Beddard. 2.
- AMPHITRITE [Polychaeta].  
 — *bifurcata*. Moore. 62.
- ARICIA [Polychaeta].  
 — *fimbriata*. Moore. 62.
- ASPIDOSIPHON [Gephyrea].  
 — *ambonensis*. Augener. 1.  
 — *brocki*. Augener. 1.
- AXIOTHEA [Polychaeta].  
 — *campanulata*. Moore. 62.
- BETTONIA n. gen. [Oligochaeta]. Beddard. 2.  
 — *lagariensis*. Beddard. 2.
- CENTROSIPHON n. gen. [Gephyrea]. Shipley. 78.  
 — *herdmani*. Shipley. 78.
- CERATOCEPHALE [Polychaeta].  
 — *osawai*. Izuka. 44.
- CHAETOZONE [Polychaeta].  
 — *spinosa*. Moore. 62.
- CIRRATULUS [Polychaeta].  
 — *gibbosus*. Moore. 62.
- CLYWENE [Polychaeta].  
 — *mirabilonga*. Moore. 62.
- DENDROSTOMA [Gephyrea].  
 — *deshamata*. Kesteven. 46.
- DERO [Oligochaeta].  
 — *incisa*. Michaelsen. 60.
- DICHOGASTER [Oligochaeta].  
 — *cultrifera*. Michaelsen. 57.  
 — *lokoensis*. Michaelsen. 57.  
 — *erlangeri*. Michaelsen. 57.

- DICHOGASTER** [Oligochaeta].  
 ——— *gardullaensis*. Michaelsen. 57.  
 ——— *gofaensis*. Michaelsen. 57.  
 ——— *greeffi*. Michaelsen. 59.  
 ——— *kaffaensis*. Michaelsen. 57.  
 ——— *lituifera*. Michaelsen. 57.  
 ——— *modesta*. Michaelsen. 57.  
 ——— *mulataensis*. Michaelsen. 57.  
**DIPOROCOAETA** [Oligochaeta].  
 ——— *aquatica*. Benham. 4.  
**DRAWIDA** [Oligochaeta].  
 ——— *burchardi*. Michaelsen. 59.  
**DRILONEREIS** [Polychaeta].  
 ——— *canadensis*. McIntosh. 54.  
**EISENIA** [Oligochaeta].  
 ——— *kučenkoi*. Michaelsen. 59.  
 ——— *skorikovi*. Michaelsen. 59.  
**EMINOSCOLEX** [Oligochaeta].  
 ——— *affinis*. Michaelsen. 57.  
 ——— *ater*. Michaelsen. 57.  
 ——— *kaffaensis*. Michaelsen. 57.  
 ——— *montanus*. Michaelsen. 57.  
 ——— *silvestris*. Michaelsen. 57.  
 ——— *variabilis*. Michaelsen. 57.  
**ENCHYTRAEUS** [Oligochaeta].  
 ——— *alpestris*. Bretscher. 14.  
 ——— *simulans*. Benham. 4.  
 ——— *parvulus*. Bretscher. 14.  
**Eudichogaster** n. gen. [Oligochaeta].  
 ——— Michaelsen. 59.  
 ——— *ashvorthi*. Michaelsen. 59.  
**EUDRILUS** [Oligochaeta].  
 ——— *kamerunensis*. Michaelsen. 59.  
**EUMIDIA** [Polychaeta].  
 ——— *caeca*. Moore. 62.  
**EUNICE** [Polychaeta].  
 ——— *gracilis*. Moore. 62.  
 ——— *jeffreysii*. McIntosh. 54.  
 ——— *medicina*. Moore. 62.  
 ——— *mucronata*. Moore. 62.  
 ——— *northioidea*. Moore. 62.  
 ——— *quinguidida*. Moore. 62.  
**EUPHROSYNE** [Polychaeta].  
 ——— *affinis*. Horst. 39.  
 ——— *hystrix*. Horst. 39.  
 ——— *longisetosa*. Horst. 39.  
 ——— *maculata*. Horst. 39.  
 ——— *mucosa*. Horst. 39.  
 ——— *obiensis*. Horst. 39.  
 ——— *pelagica*. Horst. 39.  
 ——— *pilosa*. Horst. 39.  
 ——— *sibogae*. Horst. 39.  
**FREDERICIA** [Oligochaeta].  
 ——— *biglobulata*. Bretscher. 15.  
 ——— *connata*. Bretscher. 14.

- FREDERICIA** [Oligochaeta].  
 ——— *emarginata*. Bretscher. 14.  
 ——— *exserta*. Bretscher. 14.  
 ——— *irregularis*. Bretscher. 14.  
 ——— *parva*. Bretscher. 14.  
 ——— *quadriglobulata*. Bretscher. 15.  
 ——— *variata*. Bretscher. 14.  
**Gardullaria** n. gen. [Oligochaeta].  
 ——— Michaelsen. 57.  
 ——— *armata*. Michaelsen. 57.  
**GLYPHIDRILUS** [Oligochaeta].  
 ——— *malayanus*. Michaelsen. 59.  
**GONIADA** [Polychaeta].  
 ——— *distorta*. Moore. 62.  
 ——— *foliacea*. Moore. 62.  
**HAPLOTAXIS** [Oligochaeta].  
 ——— *heterogyne*. Benham. 4.  
**HELODRILUS** [Oligochaeta].  
 ——— *acystis*. Michaelsen. 59.  
 ——— *attemsi*. Michaelsen. 59.  
 ——— *sotschiensis*. Michaelsen. 59.  
**HENLEA** [Oligochaeta].  
 ——— *dorsalis*. Bretscher. 14.  
 ——— *rhaetica*. Bretscher. 15.  
**HYLOSYNDA** [Polychaeta].  
 ——— *carinata*. Moore. 62.  
 ——— *magnacornuta*. Moore. 62.  
**IRIDODRILUS** [Oligochaeta].  
 ——— *preussi*. Michaelsen. 59.  
**Kaffania** n. gen. [Oligochaeta].  
 ——— Michaelsen. 57.  
 ——— *neumanni*. Michaelsen. 57.  
**LAETMATONICE** [Polychaeta].  
 ——— *pellucida*. Moore. 62.  
**LARANDA** [Polychaeta].  
 ——— *robusta*. Moore. 62.  
**LEPIDONOTUS** [Polychaeta].  
 ——— *branchiferus*. Moore. 62.  
 ——— *caelorus*. Moore. 62.  
 ——— *chitoniformis*. Moore. 62.  
 ——— *vezillarius*. Moore. 62.  
**LIMNODRILUS** [Oligochaeta].  
 ——— *lucasi*. Benham. 4.  
 ——— *newaensis*. Michaelsen. 59.  
 ——— *vejdovskyanus*. Benham. 4.  
**LOIMIA** [Polychaeta].  
 ——— *arborea*. Moore. 62.  
**LUMBRICONEREIS** [Polychaeta].  
 ——— *acutifrons*. McIntosh. 54.  
 ——— *brevipes*. McIntosh. 54.  
**MALDANE** [Polychaeta].  
 ——— *coronata*. Moore. 62.

- Malodrilus** n. gen. [Oligochaeta].  
 Michaelson. 57.  
 — *gardullaensis*. Michaelson. 57.  
 — *neumannii*. Michaelson. 57.  
**MARPHYSA** [Polychaeta].  
 — *furcellata*. Crossland. 22.  
 — *macintoshi*. Crossland. 22.  
 — *simplex*. Crossland. 22.  
**MEGASCOLEX** [Oligochaeta].  
 — *laingii*. Benham. 5.  
**MESENCHYTRAUS** [Oligochaeta].  
 — *tigrinus*. Bretscher. 14.  
**Metschnikov** n. gen. [Oligochaeta].  
 Michaelson. 57.  
 — *suctorica*. Michaelson. 57.  
**MICROCHAETUS** [Oligochaeta].  
 — *griseus*. Michaelson. 59.  
**NAIDIUM** [Oligochaeta].  
 — *bilobatum*. Bretscher. 14.  
**NEPHTHYS** [Polychaeta].  
 — *brachycephala*. Moore. 62.  
**NEREIS** [Polychaeta].  
 — *paucidentata*. Moore. 62.  
 — *pusilla*. Moore. 62.  
**Neumannella** n. gen. [Oligochaeta].  
 Michaelson. 57.  
 — *gracilis*. Michaelson. 57.  
 — *pallida*. Michaelson. 57.  
 — *siphonochaeta*. Michaelson. 57.  
 — *tenuis*. Michaelson. 57.  
**NICOMACHE** (?) [Polychaeta].  
 — *inornata*. Moore. 62.  
**NINOE** [Polychaeta].  
 — *palmata*. Moore. 62.  
**NORTHIA** [Polychaeta].  
 — *geophiliformis*. Moore. 62.  
**NOTIODRILUS** [Oligochaeta].  
 — *aucklandicus*. Benham. 6.  
**NOTOCIRRUS** [Polychaeta].  
 — *zonata*. Moore. 62.  
**ONUPHIS** [Polychaeta].  
 — *cirrobranchiata*. Moore. 62.  
**Paranorthia** n. gen. [Polychaeta].  
 Moore. 62.  
 — *brevicornuta*. Moore. 62.  
**PELODRILUS** [Oligochaeta].  
 — *ignatorii*. Michaelson. 58.  
**PHASCOLOSOMA** [Gephyrea].  
 — *schüttei*. Augener. 1.  
 — *teres*. Hutton. 40.  
**PHERETIMA** [Oligochaeta].  
 — *dunckeri*. Michaelson. 59.  
**PHREODRILUS** [Oligochaeta].  
 — *lacustris*. Benham. 4.  
 — *mauianus*. Benham. 4.  
**PHYLLOCHAETOPTERUS** [Polychaeta].  
 — *elioti*. Crossland. 21.  
 — *pictus*. Crossland. 21.  
**PHYMOSOMA** [Gephyrea].  
 — *thomense*. Augener. 1.  
**PLAGIOCHAETA** [Oligochaeta].  
 — *lateralis*. Benham. 7.  
 — *montana*. Benham. 7.  
 — *ricardi*. Benham. 7.  
 — *rossii*. Benham. 7.  
**PLUTELLUS** [Oligochaeta].  
 — *lacustris*. Benham. 4.  
**POLYGORDIUS** [Archannelida].  
 — *ijimai*. Izuka. 43.  
**POLYMNIA** [Polychaeta].  
 — *neidensis* var. *japonica* n.  
 var. Moore. 62.  
**POLYNOE** [Polychaeta].  
 — *semierma*. Moore. 62.  
**PONTODRILUS** [Oligochaeta].  
 — *laccadiensis*. Beddard. 3.  
**PYGMAEODRILUS** [Oligochaeta].  
 — *neumannii*. Michaelson. 57.  
**Restio** n. gen. [Polychaeta]. Moore. 62.  
 — *aenus*. Moore. 62.  
**SCALESETOSUS** [Polychaeta].  
 — *formosus*. Moore. 62.  
**Scionella** n. gen. [Polychaeta]. Moore. 62.  
 — *japonica*. Moore. 62.  
**STUHLMANNIA** [Oligochaeta].  
 — *asymmetrica*. Michaelson. 57.  
 — *michaelseni*. Beddard. 2.  
**Taupodrilus** n. gen. [Oligochaeta].  
 Benham. 4.  
 — *simplex*. Benham. 4.  
**TELEUDRILUS** [Oligochaeta].  
 — *abassiensis*. Michaelson. 57.  
 — *annulicystis*. Michaelson. 57.  
 — *arussiensis*. Michaelson. 57.  
 — *assimilis*. Michaelson. 57.  
 — *beddardi*. Michaelson. 57.  
 — *diddaensis*. Michaelson. 57.  
 — *ellenbecki*. Michaelson. 57.  
 — *erlangeri*. Michaelson. 57.  
 — *fumigatus*. Michaelson. 57.

## TELEUDRILUS [Oligochaeta].

- *galla*. Michaelsen. 57.  
 ——— *parvus*. Michaelsen. 57.  
 ——— *rosae*. Michaelsen. 57.  
 ——— *suctoris*. Michaelsen. 57.

## Telentoreutus n. gen. [Oligochaeta].

- Michaelsen. 57.  
 ——— *neumanni*. Michaelsen. 57.

## TEREBELLIDES [Polychaeta].

- *stroemi* var. *japonica* n. var.  
 Moore. 62.

## THAMNODERMUS [Oligochaeta].

- *buchwaldi*. Michaelsen. 59.  
 ——— *rehbergi*. Michaelsen. 59.

## TRICHOBRANCHUS [Polychaeta].

- *bibranchiatus*. Moore. 62.

## Vejdovskyella n. nom. [Oligochaeta].

Michaelsen. 60.

## ZAPOTESIA [Oligochaeta].

- *keiteli*. Michaelsen. 59.

## 2003-2031 BRACHIOPODA. POLYZOA (OR BRYOZOA).

## TITLES.

- Andersson, K. A.** Eine Wiederentdeckung von *Cephalodiscus* (M. Intosh). (Vorläuf. Mitt.) Zool. Anz., Leipzig, **26**, 1903, (368-369). [2031]. 1
- Arnold, Ralph.** The paleontology and stratigraphy of the marine Pliocene and Pleistocene of San Pedro, California. (Dissertation . . . . Leland Stanford Junior University . . . . degree . . . . Ph. D.). [Reprinted from San Francisco, Mem. Cal. Acad. Sci., **3**] in Stanford University, Cal., Leland Stanford Jr. Univ. Hopkins Seaside Lab., Cont. Biol., No. **31**, 1903, (1-420, with pl.). [0227 gi 0231 0831 2031 2231]. 2
- Barnes, J.** On a fossil Polyzoon, from the mountain limestone, Castleton. Manchester, Trans. Geol. Soc., **28**, 1903, (243-245). [0227 de 2031]. 3
- Bassler, Ray S.** The structural features of the Bryozoan genus *Homotrypa* with descriptions of species from the Cincinnati group [with bibliography]. Washington, D.C., Smithsonian Inst., Nation. Mus. Proc., **26**, 1903, (565-591, with 6 pl.). Separate. 24.3 cm. [2031]. 4
- Clarke, John M[ason] and Euedemann, Rudolf.** Guelph fauna in the state of New York [with nn. spp. in Brachiopoda and Mollusca]. Albany Univ., N.Y., Mem. St. Mus., No. **5**, 1903, (295, with pl.). 29.8 cm. [0227 gg 2031 2231]. 5
- Codră, G. E.** On *Rhombopora lepidodendroides* Meek. [from the Permian of Nebraska]. Amer. Geol., Minneapolis, Minn., **31**, 1903, (22-24, with pl.). [2031]. 6
- Cummings, Edgar R.** A section of the Upper Ordovician at Vevay, Indiana. [Faunal lists, with descriptions of new species of Bryozoa.] Amer. Geol., Minneapolis, Minn., **28**, 1901, (361-380, with 2 pl.). [2031 0227 gg]. 7
- Cummings, Edgar R.** The morphogenesis of *Platystrophia*. A study of the evolution of a Paleozoic Brachiopod [with bibliography]. Amer. J. Sci., New Haven, Conn., (Ser. 4), **15**, 1903, (1-48, 121-132, with pl.). [2023 2031]. 8
- Dacqué, Edgar.** Mittheilungen über den Kreidecomplex von Abu Roash bei Cairo. Palaeontographica, Stuttgart, **30**, II, 1903, (337-392). [0231 0831 2027 fb 2031 2231]. 9
- Dall, William Healey.** Contributions to the Tertiary fauna of Florida with especial reference to the siliceous beds of Tampa and the Pliocene beds of the Caloosahatchie river, including in many cases a complete revision of the generic groups treated of and their American Tertiary species. Part 6, concluding the work. [Pelecypoda (concluded) and Brachiopoda, with discussion of geology]. Philadelphia, Pa., Trans. Wagner Free Inst. Sci., **3**, 1903, ((i-xiv) + (1219-1654) with pls.). Separate. 28.5 cm. [2027 gh 2031 2227 gh 2231]. 10
- Drevermann, Fritz.** Die Fauna der oberdevonischen Tuffbreccie von Langenauach bei Haiger. Berlin, Jahrb. geol. Landesanst., **21**, 1901, Abh. auss. st. Pers., (99-207, mit 5 Taf.). [0231 2031 2231 2831]. 10a
- Foalis, M.** The Lithothamnion of the Maldives and Laccadives. [Mentions some Bryozoa on which *Lithothamnion* grows.] In: Gardiner's Fauna and geography of the Maldives and Laccadive Archipelagoes, **1**, (460-477, pls. XXIV-XXV). [2019 0819 0831]. 11
- Gardiner, J. S.** Lagoon deposits. I. General account. II. Report on certain deposits. Sir J. Murray. Fauna

and Geography of the Maldiv and Laccadive Archipelagoes, II, i, (581-588, pl. XXXIV). [0819 0827 ma 0831 2031]. 12

**Gariaev, V. P.** Bericht über eine Reise zur Untersuchung der Evertebratenfauna des Baikal-Sees im Sommer 1900 u. 1901. (Russ.) St. Petersburg, Trd. Troick-Klyacht. Otd. Russ. Geogr. Obsč., V, 2, 1902, [1903], (27-48, mit 1 Karte). [0627 1227 1827 2027 2227 2627 0631 1231 1831 2031 2231 2631]. 13

**Gill, E. L.** Note on the occurrence of Keisley Limestone-Pebbles in the red sandstone-rocks of Peel (Isle of Man). London, Q. J. Geol. Soc., 59, 1903, (307-310). [2827 de 2027 de 1027 de 2227 de 0827 de]. 14

**Gordon, Maria M. O.** The geological structure of Monzoni and Faasa. Edinburgh, Trans. Geol. Soc., 8, 1903, (Spec. part X, + 180, with 18 pls., 2 maps and 33 text-figs.). [1027 dk 2027 dk 0827 dk]. 15

**Grabau, A. W.** Stratigraphy of Becraft mountain, Columbia county, New York. [List of fossils, with nn. spp. of Brachiopoda]. Albany, Univ., N.Y., Bull. St. Mus., No. 69, 1903, (1030-1079, with map). [0227 gg 2027 gg 2031]. 16

**Graeffe, Ed[uard].** Uebersicht der Fauna des Golfes von Triest nebst Notizen über Vorkommen, Erscheinungen- und Laichzeit der einzelnen Arten. Wien, Arb. Zool. Univ., 15, 1903, (97-112). [0227 dk 2019 2027 dk 5019 5027 dk]. 17

**Hamilton, A.** On the occurrence of *Paludicella* in N. Zealand. Wellington, Trans. N. Zeal. Inst., 35, 1903, (262-264). [2027 ik 2031]. 18

**Hind, W.** Life-zones in the British Carboniferous rocks. Report of the Committee. London, Rep. Brit. Ass., 1903, (288-296). [1027 de 5427 de 2027 de 2227 de]. 19

**Joubin, L.** Zoologie. Brachiopodes dans: Expédition antarctique Belge. Résultats du voyage du S.Y. "Belgica" en 1897-99. Rapports scientifiques. Anvers (Imprimerie J. E. Buschmann), 1902, (13, av. figs. et 2 pls.). 5 fr. [2027 o 2031]. 20

**Jukes-Browne, A. J.** The Cretaceous Rocks of Britain. Vol. II. The Lower and Middle Chalk of England. Mem. Geol. Surv. U. K., London, 1903, (xiii + 568). [0427 de 0627 de 2027 de 2227 de]. 21

On the zones of the Upper Chalk in Suffolk. [Unimportant.] London, Proc. Geol. Ass., 18, 1903, (85-94, with 1 map). [1027 de 0627 de 5427 de 2027 de 0827 de]. 22

Devonshire in the time of the Lower Chalk. Plymouth, Rep. Devon. Ass., 35, 1903, (787-799, 1 pl.). [1027 de 2027 de 2227 de]. 23

**Katzer, Friedrich.** Grundzüge der Geologie des unteren Amazonasgebietes (des Staates Pará in Brasilien). Leipzig (M. Weg), 1903, (III + 298, mit Portr., 1 Karte). 26 cm. 14 M. [1031 0227 hh 2031 2831]. 24

**Knipovich, N. M.** Zoologische Ergebnisse der russischen Expeditionen nach Spitzbergen. Mollusca and Brachiopoda IV Nachtrag. St. Petersburg, Ann. Mus. Zool. Ac. Sc., 8, 1903, (133-143). [2027 kd 2031 2227 kd 2231]. 25

**Lamplugh, G. W. and Walker, J. F.** On a fossiliferous band at the top of the Lower Greensand near Leighton Buzzard (Bedfordshire). London, Q. J. Geol. Soc., 59, 1903, (234-265, pls. XVI-XVIII). [1027 de 1827 de 2031 2231 2027 de 2227 de]. 26

**Lang, W. D.** On a fossiliferous bed in the Selbornian of Charmouth. Geol. Mag., London, [4], 10, 1903, (388-392, with 1 fig.). [2027 de 2227 de 1827 de 0827 de]. 27

**Loomis, F. B.** The dwarf fauna of pyrite layer at the horizon of the Tully limestone in Western New York. Albany, Univ., N.Y., Bull. St. Mus., No. 69, 1903, (892-920, with 5 pls.). [0227 gg 2031 2231 2631]. 28

**Meissner, Maximilian.** Bericht über die Brachiopoden-Litteratur des Jahres 1894. Arch. Natg., Berlin, 83, Bd 2, H. 3, 1896, [1903], (129-130). [2003]. 29

Liste der von Herrn Professor Semon bei Amboina und Thursday Island gesammelten Bryozoen. Jena, Denkschr. med. Ges., 8, 1903, (727-731, mit 1 Taf.). [2027 ia 2031]. 30

**Murray, Sir J. r. Gardiner, J. S.**

**Nickles, John M.** The Richmond group in Ohio and Indiana and its subdivisions, with a note on the genus *Strophomena* and its type. Amer. Geol., Minneapolis, Minn., **32**, 1903, (202-218). [2031]. 31

**Noetling, Fritz.** Ueber die Sculptur des *Productus abichi* Waagen. Centralbl. Min., Stuttgart, **1903**, (529-531). [2031]. 32

**Norman, A. M.** Notes on the Natural History of East Finmark. Polyzoa. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (567-598, pl. XIII); **12**, 1903, (87-128, pls. VIII-IX). [2007 2027 db 2031]. 33

**Ostroumoff, A[leksěj].** Sur le développement du cryptocyste et de la chambre de compensation. (Communication préliminaire.) Zool. Anz., Leipzig, **27**, 1903, (96-97). [2015]. 34

**Petch, T.** Marine zoology at Filey. Naturalist, London, **1903**, (351). [1027 de 0627 de 1827 de 2027 de 2627 de 0827 de 2227 de 5427 de]. 35

**Rowe, A. W.** The zones of the white chalk of the English coast. III. Devon. London, Proc. Geol. Ass., **18**, 1903, (1-51, pls. I-XIII). IV. Yorkshire. *Ib.*, (193-296, pls. XVII-XL). [0627 de 0827 de 1027 de 1031 2027 de]. 36

**Ruedemann, Rudolf v. Clarke, John, M.**

**Schepotieff, Alexander.** Untersuchungen über den feineren Bau der Borsten einiger Chätopoden und Brachiopoden. Zs. Wiss. Zool., Leipzig, **74**, 1903, (656-710, mit 4 Taf.). [1807 2007]. 37

**Schuchert, Charles.** On the Hilderbergian fossils near Montreal, Canada. [Descriptions of two new species of *Chonostrophia* from Quebec and New York.] Amer. Geol., Minneapolis, Minn., **27**, 1901, (245-253). [2027 gd 2031]. 38

——— **Morse on living brachiopods.** [Observations on Living Brachiopoda. By Edward S. Morse] Amer. Geol., Minneapolis, Minn., **31**, 1903, (112-121). [2003]. 39

——— **On the Manlius formation of New York.** Amer. Geol., Minneapolis, Minn., **31**, 1903, (160-178). [0227 gg 0831 2031]. 40

**Shrubsole, O. A.** On the probable source of some of the pebbles of the Triassic Pebble-beds of South Devon and

of the Midland Counties. London, Q. J. Geol. Soc., **59**, 1903, (311-333). [0827 de 1827 de 2027 de]. 41

**Walker, J. F. v. Lamplugh, G. W.**

**Walther, Karl.** Das Unterdevon zwischen Marburg a. L. und Herborn (Nassau). N. Jahrb. Min., Stuttgart, Beilagebd. **17**, 1903, (1-75, mit 4 Taf.). [0231 2031 2231]. 42

## 2003 COMPREHENSIVE AND GENERAL WORKS.

**Weissner, Maximilian.** Bericht über die Brachiopoden-Litteratur des Jahres 1894. Arch. Natg., Berlin, **62**, Bd 2, H. 3, 1896, [1903], (129-130).

**Schuchert, Charles.** Morse on living brachiopods. [Observations on Living Brachiopoda. By Edward S. Morse.] Amer. Geol., Minneapolis, Minn., **31**, 1903, (112-121).

## 2007 STRUCTURE.

**Norman, A. M.** Notes on the Natural History of East Finmark. [Polyzoa.] Ann. Mag. Nat. Hist., (Ser. 7), **11**, 1903, (567-598, pl. XIII); **12**, 1903, (87-128, pls. VIII-IX).

## 2015 DEVELOPMENT.

**Ostroumoff, A[leksěj].** Sur le développement du cryptocyste et de la chambre de compensation. (Communication préliminaire.) Zool. Anz., Leipzig, **27**, 1903, (96-97).

**Robertson, Alice.** Embryology and embryonic fission in the genus *Crisia*. [Dissertation . . . Ph.D. . . . Univ. of Cal.] Berkeley, Univ. Cal., Pub. Zool., **1**, 1903, (115-156, with 4 pls.). Separate. 27 cm.

## 2019 ETHOLOGY.

**Foslie, M.** The *Lithothamnia* of the Maldives and Laccadives. Mentions some Bryozoa on which *Lithothamnion* grows. In: Gardiner's Fauna and geography of the Maldives and Laccadive Archipelagoes, **1**, (460-471, pls. XXIV-XXV).



**Graeffe, E.** [Brachiopoden- und Bryozoen-] Fauna des Golfes von Triest. Wien, Arb. Zool. Inst. Univ., **15**, 1903, (97-112).

**Lamplugh, G. W. and Walker, J. F.** On a fossiliferous band at the top of the Lower Greensand near Leighton Buzzard (Bedfordshire). London, Q. J. Geol. Soc., **59**, 1903, (234-265, pls. XVI-XVIII).

## 2023 VARIATION.

**Cummings, Edgar Roscoe.** The morphogenesis of *Platystrophia*. A study of the evolution of a Paleozoic Brachiopod [with bibliography]. Amer. J. Sci., New Haven, Conn., (Ser. 4), **15**, 1903, (1-48, 121-136, with pl.).

**Lang, W. D.** On a fossiliferous bed in the Selbornian of Charmouth. Geol. Mag., London, [4], **10**, 1903, (388-392, with 1 fig.).

**Petch, T.** Marine Zoology at Filey. Naturalist, London, **1903**, (351).

**Rowe, A. W.** The zones of the white chalk of the English coast. III. Devon. London, Proc. Geol. Ass., **18**, 1903, (1-51, pls. I-XIII). IV. Yorkshire, *Ib.*, (193-296, pls. XVII-XL).

## 2027 GEOGRAPHICAL DISTRIBUTION.

### d EUROPE.

#### db RUSSIA IN EUROPE.

**Norman, A. M.** Notes on the natural history of East Finmark. Ann. Mag. Nat. Hist., (Ser. 7), **11**, 1903, (567-598, pl. XIII).

#### de BRITISH ISLANDS.

**Barnes, J.** On a fossil Polyzoan from the mountain limestone, Castleton. Manchester, Trans. Geol. Soc., **28**, 1903, (243-245).

**Gill, L.** Note on the occurrence of Keisley Limestone pebbles in the Red Sandstone Rocks of Peel (Isle of Man). London, Q. J. Geol. Soc., **59**, 1903, (307-310).

**Hind, W.** Life-zones in the British Carboniferous Rocks. Report of the Committee. London, Rep. Brit. Ass., **1902**, (210-224).

**Jukes-Browne, A. J.** The Cretaceous Rocks of Britain. Vol. II. The Lower and Middle Chalk of England, Mem. Geol. Surv. U.K., London, **1903**, (xiii + 568).

——— On the zones of the Upper Chalk in Suffolk. [Unimportant.] London, Proc. Geol. Ass., **18**, 1903, (85-94, with 1 map).

——— Devonshire in the time of the Lower Chalk. Plymouth, Rep. Devon. Ass., **35**, 1903, (787-799, 1 pl.).

**Shrubsole, O. A.** On the probable source of some of the pebbles of the Triassic Pebble-beds of South Devon and of the Midland Counties. London, Q. J. Geol. Soc., **59**, 1903, (311-333).

#### dk AUSTRIA-HUNGARY.

**Gordon, M. M. O.** The geological structure of Monzoni and Fassa. Edinburgh, Trans. Geol. Soc., **8**, 1903, (sp. part X + 180, with 18 pls., 2 maps and 33 text-figs.).

**Graeffe, E.** [Brachiopoden und Bryozoen] des Golfes von Triest . . . Wien, Arb. Zool. Inst. Univ., **15**, 1903, (97-112).

### e ASIA.

#### ea ASIATIC RUSSIA.

**Garlaev, V. P.** Bericht über eine Reise zur Untersuchung der Evertebratenfauna des Baikäl Sees im Sommer 1900 u. 1901. (Russ.) St. Petersburg, Trd. Troick-Kiacht. Otd. Russ. Geogr. Obsé., **v**, 1902, [1903], (27-48, mit 1 Karte).

### f AFRICA.

#### fb EGYPT.

**Dacqué, Edgar.** Mittheilungen über den Kreidecomplex von Abu Roash bei Cairo. Palaeontographica, Stuttgart, **30**, II, 1903, (337-392).

## g NORTH AMERICA.

## gd CANADA.

**Schuchert, Charles.** On the Helderbergian fossils near Montreal, Canada. [Descriptions of two new species of *Chonostrophia* from Quebec and New York]. Amer. Geol. Minneapolis, Minn., 27, 1901, (245-253).

## gg NORTH-EASTERN UNITED STATES.

**Grabau, A. W.** Stratigraphy of Becraft mountain, Columbia county, New York. Albany, Univ., N.Y., Bull. St. Mus., No. 69, 1903, (1030-1079, with map).

## gh SOUTH-EASTERN UNITED STATES.

**Dall, William Healey.** Contributions to the Tertiary fauna of Florida with especial reference to the siliceous beds of Tampa and the Pliocene beds of the Caloosahatchie river, including in many cases a complete revision of the generic groups treated of and their American Tertiary species. Part 6, concluding the work [Pelecypoda (concluded) and Brachiopoda, with discussion of geology]. Philadelphia, Pa., Trans. Wagner Free Inst. Sci., 3, 1903, ((i-xiv) + (1219-1654) with pl.). Separate. 28.5 cm.

## i AUSTRALASIA.

## ii NEW GUINEA WITH ISLANDS FROM WALLACE'S LINE.

**Meissner, Maximilian.** Liste der von Herrn Professor Semon bei Amboina und Thursday Island gesammelten Bryozoen. Jena, Denkschr. med. Ges., 8, 1903, (727-731, mit 1 Taf.).

## ik NEW ZEALAND.

**Hamilton, A.** *Paludicella* in New Zealand. Wellington, Trans. N. Zeal. Inst., 35, 1903, (262-264).

## k ARCTIC.

## kd ISLANDS NORTH OF EUROPE AND ASIA.

**Knipovič, N. M.** Zoologische Ergebnisse der russischen Expeditionen nach (x 2-9053)

Spitzbergen. Mollusca and Brachiopoda. IV. Nachtrag. St. Petersburg, Ann. Mus. zool. Ac. Sc., 8, 1903, (133-143).

## o ANTARCTIC.

**Joubin, L.** Zoologie. Brachiopodes. In: Expédition antarctique Belge. Résultats du voyage du S. Y. "Belgica" en 1897-99. Rapports scientifiques. Anvers (Imprimerie J. E. Buschmann), 1902, (13, av. figs. and 2 pls.).

## 2031 TAXONOMY AND SYSTEMATIC.

## BRACHIOPODA.

## GENERAL.

**Clarke, J. M. and Ruedemann, R.** Guelph fauna in the state of New York. Albany Univ., N.Y., Mem. St. Mus., No. 5, 1903, (295, with pl.). 29.8 cm.

**Dall, W. H.** Contributions to the Tertiary fauna of Florida with especial reference to the siliceous beds of Tampa and the Pliocene beds of the Caloosahatchie river, including in many cases a complete revision of the generic groups treated of and their American Tertiary species. Part 6, concluding the work [Pelecypoda (concluded) and Brachiopoda, with discussion of geology]. Philadelphia, Pa., Trans. Wagner Free Inst. Sci., 3, 1903, ((i-xiv) + (1219-1654) with pl.). Separate. 28.5 cm.

**Joubin, L.** Zoologie. Brachiopodes dans: Expédition antarctique Belge. Résultats du voyage du S. Y. "Belgica" en 1897-99. Rapports scientifiques. Anvers (Imprimerie J. E. Buschmann), 1902, (13, av. figs et 2 pls.).

**Knipovič, N. M.** Zoologische Ergebnisse der russischen Expeditionen nach Spitzbergen. Mollusca und Brachiopoda. IV. Nachtrag. St. Petersburg, Ann. Mus. Zool. Ac. Sc., 8, 1903, (133-143).

**Lamplugh, G. W. and Walker, J. F.** On a fossiliferous band at the top of the Lower Greensand near Leighton Buzzard (Bedfordshire). London, Q. J. Geol. Soc., 59, 1903, (234-265, pls. XVI-XVIII, 2 text-figs.).

**Loomis, F. B.** The dwarf fauna of the pyrite layer at the horizon of the Tully limestone in western New York [nn. spp. of Brachiopoda, Mollusca and Crustacea]. Albany, Univ. N.Y., Bull. St. Mus., No. 69, 1903, (892-920, with 5 pls.).

## SPECIAL.

*Ambocoelia umbonata* Conrad, mut. *pygmaea*† n. mut., mut. *pluto*† n. mut. **Loomis, F. B.** Albany, Univ., N.Y., Bull. St. Mus., No. 69, 1903, (892-920).

*Argyrotheca schucherti*† n. sp. Tertiary, Florida. **Dall, W. H.** Philadelphia, Pa., Trans. Wagner Free Inst. Sci., 3, 1903, (i-xiv + 1219-1654).

*Athyris*† nn. spp. Deutschland, oberdevonisch. **Drevermann, F.** Berlin, Jahrb. geol. Landesanst., 21, 1901, Abh. auss. st. Pers., (99-207).

*Camarotoechia hudsonica*† n. sp. Becraft Mountain, N.Y. **Grabau, A. W.** Albany, Univ., N.Y., Bull. St. Mus., No. 69, 1903, (1030-1079).

*Chonostrophia*† nn. spp. Quebec and New York. **Schuchert, C.** Amer. Geol., Minneapolis, Minn., 27, 1901, (245-253).

*Cramia lecontei* n. sp. South Polar regions. **Joubin, L.** in Expédition antarctique Belge, 1902, (13, av. figs. et 2 pls.).

*Cyrtina hamiltonensis* Hall, mut. *pygmaea*† n. mut. **Loomis, F. B.** Albany, Univ., N.Y., Bull. St. Mus., No. 69, 1903, (892-920).

*Kingena blanchenhorni*† n. sp. **Daqué, E.** Palaeontographica. Stuttgart, 30, II, 1903, (337-392, 3 Taf.).

— *neudonisi*† n. sp. **Lamplugh, G. W.** and **Walker, J. F.** London Q. J. Geol. Soc., 59, 1903, (258).

*Magas latestriata*† n. sp. **Lamplugh, G. W.** and **Walker, J. F.** L.c. (254).

*Monomerella noveboracum*† n. sp. Upper Silurian, New York. **Clarke, J. M.** and **Ruedemann, R.** Albany, Univ., N.Y., Mem. St. Mus., No. 5, 1903, (195).

*Nucleospira concinna* Hall, mut. *pygmaea*† n. mut. **Loomis, F. B.** Albany, Univ., N.Y., Bull. St. Mus., No. 69, 1903, (892-920).

*Orthis tectiformis*† n. sp. Unterdevon, Marburg. **Walther, K.** N. Jahrb. Min. Stuttgart, Beilagebd., 17, 1903, (1-75).

*Orthotichia poecki*† n. sp. Brazil. **Katzer, F.** Grundzüge der Geologie des unteren Amazonasgebietes. Leipzig, 1903.

*Platystrophia*, morphogenesis. **Cummings, E. R.** Amer. J. Sci., New Haven, Conn., (Ser. 4), 15, 1903, (1-48, 121-136, with pl.).

*Productella spinulicosta* Hall, mut. *pygmaea*† n. mut. **Loomis, F. B.** Albany, Univ., N.Y., Bull. St. Mus., No. 69, 1903, (892-920).

*Productus abichi*† Waagen, Sculptur. **Noetling, F.** Centralbl. Min., Stuttgart, 1903, (529-531).

— *amazonicus*† n. sp. Brazil, **Katzer, F.** Grundzüge der Geologie des unteren Amazonasgebietes. 1903.

*Rhynchonella*† nn. spp. Tertiary, Florida. **Dall, W. H.** Philadelphia, Pa., Trans. Wagner Free Inst. Sci., 3, 1903, (i-xiv + 1219-1654).

— nn. spp. South polar regions. **Joubin, L.** Zoologie. Brachiopodes in Expedition antarctique Belge. 1902, (13 pp., 3 figs., 2 pls.).

— (*Hypothyris*) *coronula*† n. sp. Deutschland ober-Devonisch. **Drevermann, F.** Berlin, Jahrb. geol. Landesanst., 21, 1901, Abh. auss. st. Pers., (99-207).

— *litchfieldensis*† n. sp. New York, Silurian. **Schuchert, C.** Amer. Geol., Minneapolis, Minn., 31, 1903, (160-178).

— nn. varr., *R. leightonensis* n. sp. **Lamplugh, G. W.** and **Walker, J. F.** London, Q. J. Geol. Soc., 59, 1903, (260-261).

*Rhynchospira exarata*† n. sp. Becraft Mountain, N.Y. **Grabau, A. W.** Albany, Univ., N.Y., Bull. St. Mus., No. 69, 1903, (1030-1079).

*Spirifer piracanensis*† n. sp. Brazil. **Katzer, F.** Grundzüge der Geologie des unteren Amazonasgebietes. Leipzig, 1903.

— *fimbriatus* Conrad, mut. *simplicissimus*† n. mut.; *S. fimbriatus* Conrad mut. *pygmaeus*† n. mut., *S. medialis* Hall, mut. *pygmaeus*† n. mut., *S. mareyi* Hall, mut. *pygmaeus*† n. mut.

**Loomis**, F. B. Albany, Univ., N.Y., Bull. St. Mus., No. 69, 1903, (892-920).

*Strophalosia truncata* Hall, mut. *pygmaea*† n. mut. **Loomis**, F. B. l.c. (892-920).

*Strophomena*† Ohio and Indiana, Ordovician. **Nickles**, J. Amer. Geol., Minneapolis, Minn., 32, 1903, (202-218).

*Terebratalia smithi*† n. sp. **Arnold**, R. [Reprinted from San Francisco, Mem. Cal. Acad. Sci., 3.] in Stanford University, Cal., Leland Stanford Jr. Univ., Hopkins Seaside Lab., Cont. Biol., No. 31, 1903, (1-420).

*Terebratella menardi*† Lamarck var. *pterygotos* n. var. **Lamplugh**, G. W. and **Walker**, J. F. London, Q. J. Geol. Soc., 59, 1903.

*Terebratula depressa*† Lam. var. *shenleyensis* n. var. Bedfordshire. **Lamplugh**, G. W. and **Walker**, J. F. l.c. (251).

*Terebrirostra lyra* Sowerby var. *incurvirostrum*† n. var. **Lamplugh**, G. W. and **Walker**, J. F. l.c. (206).

*Trigleria lepida* Hall, mut. *pygmaea*† n. mut. **Loomis**, F. B. Albany, Univ., N.Y., Bull. St. Mus., No. 69, 1903, (892-920).

*Tropidoleptus carinatus* Conrad, mut. *pygmaeus*† n. mut. **Loomis**, F. B. l.c. (892-920).

*Zeilleria convexiformis*† n. sp. **Lamplugh**, G. W. and **Walker**, J. F. London, Q. J. Geol. Soc., 59, 1903, (253).

## BRYOZOA.

### GENERAL.

**Barnes**, J. On a fossil Polyzoan, from the mountain limestone, Castleton. Manchester, Trans. Geol. Soc., 23, 1903, (243-245).

**Cummings**, E. R. A section of the Upper Ordovician at Vevey, Indiana. [Faunal lists, with descriptions of new species of Brachiopoda]. Amer. Geol., Minneapolis, Minn., 23, 1901, (361-380, with 2 pls.).

**Gardiner**, J. S. Lagoon deposits. I. General account. II. Report on certain deposits. Sir J. Murray. Fauna

and Geography of the Maldives and Laccadive Archipelagoes, II, 1, (581-588, pl. XXXIV).

**Gariaev**, V. P. Evertbratenfauna des Baikal-Sees. . . . (Russ.) St. Petersburg, Trd. Troick-Kiacht. Otd. Russ. Geogr. Obšč., V, 2, 1902, [1903], (27-48, mit 1 Karte).

**Meissner**, M. Liste der von Herrn Professor Semon bei Amboina und Thursday Island gesammelten Bryozoen. Jena, Denkschr. med. Ges., 8, 1903, (727-731, mit 1 Taf.).

**Norman**, A. M. Notes on the natural history of East Finmark. [Polyzoa.] Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (567-598, pl. XII); 12, 1903, (87-123, pls. VIII, IX).

## ECTOPROCTA.

### GYMNOLAEMA.

#### Cyclostomata.

*Amplexopora multispinosa*† n. sp. Indiana Ordovician. **Cummings**, E. R. Amer. Geol., Minneapolis, Minn., 23, 1901, (361-380, with 2 pls.).

*Ceripora multiformis*† n. sp. Mayer-Eymar. **Daoué**, E. Palaeontographica, Stuttgart, 30, II, 1903, (337-372, 3 Taf.).

*Crisia*, embryology and embryonic fission. **Robertson**, A. Berkeley, Univ. Cal., Pub. Zool., 1, 1903, (115-156, with 4 pls.).

*Dekayella cystata*† n. sp. Indiana. Ordovician. **Cummings**, E. R. Amer. Geol., Minneapolis, Minn., 23, 1901, (361-380).

*Dekayia magna*† n. sp. Indiana. Ordovician. **Cummings**, E. R. l.c. (361-380).

*Eridotrypa vevayensis*† n. sp. Indiana. Ordovician. **Cummings**, E. R. l.c. (361-380).

*Homotrypa*† structure, nn. spp. Ordovician, Cincinnati. **Basler**, R. S. Washington, D.C., Smithsonian Inst., Nation. Mus. Proc., 26, 1903 (565-591, with 6 pls.).

*Rhombopora lepidodendroides*†. Nebraska, Permian. **Condra**, G. E. Amer. Geol., Minneapolis, Minn., 31, 1903, (22-24, with pl.).

## Cheilostomata.

*Alderina* n. gen. East Finmark. **Norman**, A. M. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (596).

*Ammatophora* n. gen. East Finmark. **Norman**, A. M. l.c. (88-89, pl. VIII, figs. 5-7).

*Amphiblestrum flemingii* Busk, A. trifolium (Busk). **Norman**, A. M. l.c. (596-597, pl. XIII, figs. 5, 6).

*Antropora* n. gen., type *A. nodulosa*. East Finmark. **Norman**, A. M. l.c. (87-88, pl. VIII, fig. 4).

*Callopora whiteatesii* n. sp. and notes on described species. East Finmark. **Norman**, A. M. l.c. (588-595, pl. XIII).

*Carbasa solanderi* n. nom. with remarks on genus. **Norman**, A. M. East Finmark. l.c. (581-583).

*Cauloramphus* n. gen. and description of species. East Finmark. **Norman**, A. M. l.c. (587-588).

*Cribrilina*, description of old and new species. East Finmark. **Norman**, A. M. l.c. (101-104, pls. VIII-IX).

*Doryporella* n. gen., type *D. spatulifera* Smitt. East Finmark. **Norman**, A. M. l.c. (106).

*Electra* Lamouroux, type *E. verticillata* Lamouroux. East Finmark. **Norman**, A. M. l.c. (586-587).

*Ellisina*, type *E. (Membranipora) levata* Hincks. East Finmark. **Norman**, A. M. l.c. (596).

*Eschara fascialis* Pallas, var. *foliacea* Ell and Sol. East Finmark. **Norman**, A. M. l.c. (112).

*Escharella*, species found in East Finmark. **Norman**, A. M. l.c. (117-118).

*Escharina* Milne-Edwards, type *E. vulgaris* Moll. East Finmark. **Norman**, A. M. l.c. (109).

*Evactinopora castletoniensis*† n. sp. **Barnes**, J. Manchester, Trans. Geol. Soc., 23, 1903, (243-245).

*Gephyrotes (Cribrilina) nitido-punctata* Smitt. East Finmark. **Norman**, A. M. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (100-101, pl. VIII, figs. 12-13).

*Harmeria* n. gen., type *H. scutulata* (Busk). East Finmark. **Norman**, A. M. l.c. (107).

*Hincksina* n. gen. East Finmark. **Norman**, A. M. l.c. (585).

*Hippothoa*, species found in East Finmark. **Norman**, A. M. l.c. (108).

*Larnacicus* n. gen. (= *Membranipora cornigera*), type *L. corniger*. **Norman**, A. M. l.c. (87, pl. VIII, fig. 3).

*Leieschara*, species found in East Finmark. **Norman**, A. M. l.c. (110).

*Lepralia*, species from East Finmark. **Norman**, A. M. l.c. (122-123).

——— Johnston, new to East Finmark. **Norman**, A. M. l.c. (100, pl. VIII, fig. 8).

*Membranipora* Lamouroux, type *M. membranacea* (Linné). East Finmark. **Norman**, A. M. l.c. (585).

*Microporella arctica* n. sp. East Finmark. **Norman**, A. M. l.c. (105).

*Monoporella spinulifera* Hincks, found in East Finmark. **Norman**, A. M. l.c. (115).

*Mucronella sincera* (Smitt), *M. labiata* Boeck, found in East Finmark. **Norman**, A. M. l.c. (118-119).

*Oechilina* n. gen., *O. tensa* n. sp. East Finmark. l.c. (595-596, pl. XIII, fig. 12).

*Porella princeps* n. sp., and old species from East Finmark. **Norman**, A. M. l.c. (112-115, pl. IX, figs. 8-11).

*Pseudoflustra solida* Stimpson, found in East Finmark. **Norman**, A. M. l.c. (124-125).

*Ramphonotus*, type *R. minax* (Busk). East Finmark. **Norman**, A. M. l.c. (597-598, pl. XIII, fig. 7).

*Reptadeonella* Busk. East Finmark. **Norman**, A. M. l.c. (104-105).

*Rosseliana (Flustra) rosselii* (Audouin). East Finmark. **Norman**, A. M. l.c. (89-90).

*Schizoporella unicornis* Johnston, found in East Finmark. **Norman**, A. M. l.c. (109).

*Scrupocellaria scabra* van Beneden. var. *paenulata* n. nom., *S. scabra* var. *septentrionalis* n. nom., subvar. *congesta* n. nom. East Finmark. **Norman**, A. M. l.c. (579-580).

*Smittia porifera* (Smitt), *S. lineata* Nordgaard, in East Finmark. Norman, A. M. l.c. (121-122, pl. IX, figs. 14, 15).

*Smittina* n. nom., type *S. landsbrovii* Johnston, and species from East Finmark. Norman, A. M. l.c. (120-121).

### Ctenostomata.

*Paludicella*, occurrence in New Zealand. Hamilton, A. Wellington, Trans. N. Zeal. Inst., 35, 1903, (262-264).

### INCERTAE SEDIS.

*Radulina* n. gen., *R. semoni* n. sp. Meissner, M. Jena, Denkschr. med. Ges., 8, 1903, (727-731, 1 Taf.).

### LIST OF NEW GENERA AND SPECIES.

*Alderina* n. gen. [Bryozoa]. Norman. 33.

*Ammatophora* n. gen. [Bryozoa]. Norman. 33.

*AMPLEXOPORA* [Bryozoa].  
— *multispinosa*†. Cumings. 7.

*Antropora* n. gen. [Bryozoa]. Norman. 33.

*ARGYROTHECA* [Brachiopoda].  
— *schucherti*†. Dall. 10.

*ATHYRIS* [Brachiopoda].  
— *acuminata*†. Drevermann. 10A.

— *cuboides*†. Drevermann. 10A.

*CALLOPORA* [Bryozoa].  
— *whiteavesii*. Norman. 33.

*CAMAROTOECHIA* [Brachiopoda].  
— *hudsonica*†. Grabau. 16.

*CARBASIA* [Bryozoa].  
— *solanderi* n. nom. Norman. 33.

*Cauloramphus* n. gen. [Bryozoa]. Norman. 33.

*CERIOPORA* [Bryozoa].  
— *multiformis*†. Daqué. 9.

*CHONOSTROPHIA* [Brachiopoda].  
— *jervensis*†. Schuchert. 38.  
— *montrealensis*†. Schuchert. 38.

*CRAMIA* [Brachiopoda].  
— *lecontei*. Joubin. 20.

*CRIBRILINA* [Bryozoa].  
— *annulata* var. *spitzbergensis* n. nom. Noriman. 33.  
— *cryptoaecium*. Norman. 33.

*DEKAYELLA* [Bryozoa].  
— *cystata*†. Cumings. 7.

*DEKAYIA* [Bryozoa].  
— *magna*†. Cumings. 7.

*Doryporella* n. gen. [Bryozoa]. Norman. 33.

*ERIDOTRYPA* [Bryozoa].  
— *vevayensis*†. Cumings. 7.

*EVACTINOPORA* [Bryozoa].  
— *castletoniensis*†. Barnes. 3.

*Harmeria* n. gen. [Bryozoa]. Norman. 33.

*Hincksina* n. gen. [Bryozoa]. Norman. 33.

*HOMOTRYPA* [Bryozoa].  
— *austini*†. Bassler. 4.  
— *cincinnatiensis*†. Bassler. 4.  
— *communis*†. Bassler. 4.  
— *curvata* var. *praecipta*† n. var. Bassler. 4.  
— *cylindrica*†. Bassler. 4.  
— *dumosa*†. Bassler. 4.  
— *flabellaris* var. *spinifera*† n. var. Bassler. 4.  
— *frondosa*†. Bassler. 4.  
— *grandis*†. Bassler. 4.  
— *libana*†. Bassler. 4.  
— *nicklesi*†. Bassler. 4.  
— *nitida*†. Bassler. 4.  
— *nodulosa*†. Bassler. 4.  
— *nodulosa*†. Bassler. 4.  
— *pulehra*†. Bassler. 4.  
— *ramulosa*†. Bassler. 4.  
— *richmondensis*†. Bassler. 4.  
— *splendens*†. Bassler. 4.  
— *wortheni* var. *intercellata*† n. var. Bassler. 4.  
— — var. *prominens*† n. var. Bassler. 4.

*KINGENA* [Brachiopoda].  
— *blanckenhornii*†. Daqué. 9.  
— *neutonii*†. Lamplugh and Walker. 26.

*Larnacicus* n. gen. [Bryozoa]. Norman. 33.

*MAGAS* [Brachiopoda].  
— *latestriata*†. Lamplugh and Walker. 26.

- MICROPORELLA** [Bryozoa].  
 ——— *arctica*. Norman. 33.
- MONOMERELLA** [Brachiopoda].  
 ——— *novoboracum*†. Clarke and Ruedemann. 5.
- Oochilina** n. gen. [Bryozoa]. Norman. 33.  
 ——— *tensa*. Norman. 33.
- ORTHIS** [Brachiopoda].  
 ——— *tectiformis*†. Walther. 42.
- ORTHOTICHIA** [Brachiopoda].  
 ——— *poechi*†. Katzer. 24.
- PORELLA** [Bryozoa].  
 ——— *princeps*. Norman. 33.
- PRODUCTUS** [Brachiopoda].  
 ——— *amazonicus*†. Katzer. 24.
- Radulina** n. gen. [Bryozoa]. Meissner. 30.  
 ——— *semoni*. Meissner. 30.
- RHYNCHONELLA** [Brachiopoda].  
 ——— *coronula*†. Drevermann. 10a.  
 ——— *gerlachei*. Joubin. 20.  
 ——— *grasiana* var. *shenleyensis* n. var. Lamplugh and Walker. 26.  
 ——— *holmesii*†. Dall. 10.  
 ——— *leightonensis*. Lamplugh and Walker. 26.  
 ——— *lineolata* (?) var. *mirabilis* n. var. Lamplugh and Walker. 26.  
 ——— *litchfieldensis*†. Schuchert. 40.  
 ——— *racovitzae*. Joubin. 20.  
 ——— *salpinx*†. Dall. 10.

- RHYNCHOSPIRA** [Brachiopoda].  
 ——— *excavata*†. Grabau. 16.
- SCRUPOCELLARIA** [Bryozoa].  
 ——— *scabra* var. *septentrionalis* n. nom. Norman. 33.  
 ——— ——— var. *paenulata* n. nom. Norman. 33.  
 ——— ——— var. *septentrionalis*, subvar. *congesta* n. nom. Norman. 33.
- SPIRIFER** [Brachiopoda].  
 ——— *piracanensis*†. Katzer. 24.
- Smittina** n. nom. [Bryozoa]. Norman. 33.
- TEREBRATALIA** [Brachiopoda].  
 ——— *smithi*†. Arnold. 2.
- TEREBRATELLA** [Brachiopoda].  
 ——— *menardi* var. *pterygotos*† n. var. Lamplugh and Walker. 26.
- TEREBRATULA** [Brachiopoda].  
 ——— *depressa* var. *shenleyensis*† n. var. Lamplugh and Walker. 26.
- TEREBRIBROSTRA** [Brachiopoda].  
 ——— *lyra* var. *incurvirostrum*† n. var. Lamplugh and Walker. 26.
- ZEILLERIA** [Brachiopoda].  
 ——— *convexiformis*†. Lamplugh and Walker. 26.

## 2203-2231 MOLLUSCA.

## TITLES.

- Adams, L. E. v. Woodward, B. B.**  
 new species of Eocene fossils from the lignitic of Alabama [nn. spp. in *Umbra-culum* (*Eosinica* n. subg.) and *Gastrochaena*]. Nautilus, Boston, Mass., 17, 1903, (19-20). [2227 gh 2231]. 1
- Ancel, P.** Histogenèse et structure de la glande hermaphrodite d'*Helix pomatia* (Linn.). Arch. biol., Paris-Liège. 19, 1903, (391-652, av. 7 pls.). [2215 2207 2231]. 2
- Sur les premières phases du développement de la glande génitale et du canal hermaphrodite chez *Helix pomatia*. (Note préliminaire.) Bibliogr. anat., Nancy, 10, 1902, (160-162). [2207 2215 2231]. 3
- Sur les premières différenciations cellulaires dans la glande hermaphrodite d'*Helix pomatia*. Bibliogr. anat., Nancy, 11, 1902, (17-20). [2215 2231]. 4
- La réduction numérique des chromosomes dans la spermatogénèse d'*Helix pomatia*. Bibliogr. anat., Nancy, 11, 1902, (145-148). [2215 2231]. 5
- Sur le Nebenkern des spermatocytes d'*Helix pomatia*. Bibliogr. anat., Nancy, 11, 1902, (234-240). [2215 2231]. 6
- Ancey, C. F.** On some new land Mollusca from Middle America. [nn. spp. in *Streptoctyla*]. Nautilus, Boston, Mass., 17, 1903, (56-57). [2227 h 2231]. 7
- New land snails from South America. [nn. spp. in *Porphyrobaphe* and *Bulimulus*]. Nautilus, Boston, Mass., 17, 1903, (82-83, 89-90). [2227 h 2231]. 8
- Ancey, C. F.** Nouvelles remarques sur les faunes australes du globe. J. conchyliol., Paris, 51, 1903, (39-47). [2231 2227 le nb]. 9
- Faune malacologique terrestre de l'île des Cocos dans l'Océan Pacifique. J. conchyliol., Paris, 51, 1903, (97-104). [2227 nb 2231]. 10
- Etude sur la faune malacologique des îles Sandwich (5<sup>e</sup> partie). J. conchyliol., Paris, 51, 1903, (295-307, av. 1 pl.). [2227 nd 2231]. 11
- Andrae, A.** Land- und Süßwasserschnecken aus Zentral- und Ostasien. [In: K. Futterer, Durch Asien. Bd. 3.] Berlin, 1903, (41-90, mit 1 Taf.). [2227 e 2231]. 12
- Andrusov, A. A.** Studien über die Brackwassercardiden. Lieferung 1. St. Petersburg, Mém. Ac. Sc., (8 F.), 13, No. 3, 1903, (82, mit 2 Fig. + 7 Taf.). [2219 2227 eh dn 2231]. 13
- Arnold, Ralph.** The paleontology and stratigraphy of the marine Pliocene and Pleistocene of San Pedro, California. (Dissertation . . . . Leland Stanford Junior University . . . . degree Ph.D.). [Reprinted from San Francisco, Mem. Cal. Acad. Sci., 3] in Stanford University, Cal., Leland Stanford Jr. Univ., Hopkins Seaside Lab., Cont. Biol., No. 31, 1903, (1-420, with pl.). Separate. 30.8 cm. [0227 gi 0231 2031 0831 2231]. 14
- Baker, Frank Collins.** Rib variation in *Cardium*. Amer. Nat., Boston, Mass., 37, 1903, (481-488). [2223 2231]. 15
- Pleistocene mollusks of White Pond, New Jersey. Nautilus, Boston, Mass., 17, 1903, (38-39). [2227 gg]. 16



- Baker**, Frank Collins. A partial list of the marine mollusks of San Salvador, Bahamas. Nautilus, Boston, Mass., **17**, 1903, (57). [2227 *hc*]. 17
- Note on *Murex marcoensis* Sowerby. Nautilus, Boston, Mass., **17**, 1903, (88-89). [2231]. 18
- Shells of land and water, a familiar introduction to the study of the Mollusks. Chicago (A. W. Mumford), 1903, (XVII + 175, with illustr., 8 col. pls.). 28 cm. [2203]. 19
- Baldwin**, D. D. Descriptions of new species of *Achatinellidae* from the Hawaiian islands. Nautilus, Boston, Mass., **17**, 1903, (34-36). [2227 *nd* 2231]. 20
- Barfuss**, J. Zur Vertilgung der Saatschnecken. Schweiz.-Bauer, Bern, **56**, No. 30, 1902, (5). [2203]. 21
- Barnard**, F. G. A. Excursion to Launching Place [Victoria]. [14 species]. Vict. Nat., Melbourne, **19**, 1903, (147-148). [2227 *if* 2231 2627 *if* 2631 4827 *if* 4831]. 22
- Bartsch**, Paul. A new landshell [*Sonorella calcottiana* n. sp.] from California. Washington, D.C., Proc. Biol. Soc., **16**, 1903, (103-104). Separate. 23.3 cm. [2227 *gi* 2231]. 23
- A new *Scissurella* [*S. dalli* n. sp.] from Patagonia. Nautilus, Boston, Mass., **17**, 1903, (90-91). [2227 *hi* 2231]. 24
- Bavay**, A. Note sur quelques espèces du genre *Pecten*, nouvelles ou mal connues. J. conchyliol., Paris, **50**, 1902, (399-406, av. fig. et pl.). [2231]. 25
- Description d'une espèce nouvelle du genre *Marginella*. J. conchyliol., Paris, **50**, 1902, (407-408, av. fig. et pl.). [2231]. 26
- et **Dautzenberg**, Ph. Description de coquilles nouvelles de l'Indo-Chine (3<sup>e</sup> suite). J. conchyliol., Paris, **51**, 1903, (201-236, av. 8 pls.). [2227 *ed* 2231]. 27
- Bellini**, R. Contribuzione alla conoscenza della fauna dei molluschi marini dell' Isola di Capri. Napoli, Boll. Soc. Nat., **15**, (1901), 1902, (85-121). [2227 *dh*]. 28
- Bergmann**, W[il]ly. Ueber den Bau des Ovariums bei Cephalopoden und einige Nachträge zur Eibildung derselben. Arch. Natg., Berlin, **69**, Bd 1, 1903, (227-236, mit 1 Taf.). [2207 2215 2231]. 29
- Bergmann**, W[il]ly. Ein Receptaculum seminis bei *Octopus de filippi* und einige biologische Beobachtungen. Berlin, SitzBer. Ges. natf. Freunde, **1903**, (104-109). [2207 2219 2231]. 30
- Bigelow**, R[obert] P[ayne] and **Eath-bun**, Eleanor P. On the shell of *Littorina litorea* as material for the study of variation. [With bibliography]. Amer. Nat., Boston, Mass., **37**, 1903, (171-184). [2223 2231]. 31
- Billups**, A. C. Fossil land shells of the Old Forest bed of the Ohio river. Nautilus, Philadelphia, Pa., **16**, 1902, (50-52). [2227 *gg* 2231]. 32
- Adaptation of mollusks to changed conditions. Nautilus, Philadelphia, Pa., **16**, 1903, (112-114). [2211]. 33
- [*Polygyra profunda* Say in Hamilton Co., Ohio]. Nautilus, Philadelphia, Pa., **16**, 1903, (119). [2227 *gg* 2231]. 34
- A proposed study of *Goniobasis*. Nautilus, Boston, Mass., **17**, 1903, (22-24). [2231]. 35
- Bis tram**, A. Freiherr von. Beiträge zur Kenntniss der Fauna des unteren Lias in der Val Solda. Geologisch-paläontologische Studien in den Comasker Alpen. I. Freiburg i. B., Ber. natf. Ges., **13**, 1903, (116-214, mit 8 Taf.). [0231 0631 2231]. 36
- Blackburn**, E. P. Dispersal of shells by beetles. Hull, Trans. Sci. F. Nat. Cl., **3**, 1903, (101). [2219]. 37
- Blake**, J. H. The geology of the country around Reading. Mem. Geol. Surv. Eng., London, **1903**, (Explanation of sheet 268), (92). [1027 *de* 2227 *de*]. 38
- Blanford**, W. T. Notes on Mr. W. M. Daly's collections of land and freshwater Mollusca from Siam. London, Proc. Malac. Soc., **5**, 1903, (274-284, pl. VIII). [2227 *ee* 2231]. 39
- Note on the supposed locality "Sulgranees," whence Dr. J. E. Gray's type-specimens of Indian Jurassic *Ammonites* were said to have been obtained. London, Proc. Malac. Soc., **5**, 1903, (345). [2227 *ef*]. 40

**Blatchley, W[ill]is S[tanley]** and **Daniels, L. E.** On some Mollusca known to occur in Indiana. A supplementary paper to Call's Catalogue. Indiana, Rep. Dept. Geol. Nat. Res. Indianapolis, **27**, 1902, [1903], (577-628, with pl.). [2227 99]. 41

**Bloomer, H. H.** The anatomy of certain species of *Ceratisolen* and *Solecurtus*. J. Malac., London, **10**, 1903, (31-40, pl. II). [2207 2231]. 42

——— Classification of the British species of the genus *Solen* Linné. J. Malac., London, **10**, 1903, (41-43). [2231]. 43

——— On the origin and function of the fourth aperture in some Pelecypoda. J. Malac., London, **10**, 1903, (43-45). [2207 2211 2231]. 44

——— Note on a malformed specimen of *Ceratisolen legumen*. J. Malac., London, **10**, 1903, (104). [2223 2231]. 45

——— The anatomy of *Pharella orientalis* Dunker and *Tagelus rufus* Spengler. J. Malac., London, **10**, 1903, (114-121, pl. X). [2207 2231]. 46

**Bochenek, Adam.** Contribution à l'étude du système nerveux des gastropodes (*Helix pomatia* Linn.). Anatomie fine des cellules nerveuses. Louvain (A. Uystpruyt), 1901, (33, av. pls hors texte). 8vo. 2 fr. 50. [2207]. 47

**Boettger, O.** Ueber die tertiären Landschnecken aus der Gattung *Vallonia* im Mainzer Becken und über einen neuen Landschnecken-Fundpunkt im Untergrunde von Frankfurt a. M. Frankfurt a. M., NachrBl. D. malakozool. Ges., **35**, 1903, (72-76). [2227 de 2231]. 48

——— Zwei neue Landschnecken aus dem Tertiärkalk von Hochheim. Frankfurt a. M., NachrBl. D. malakozool. Ges., **35**, 1903, (182-184). [2231]. 49

——— Ueber den wissenschaftlichen Wert der Schnecken- und Muschelschalen. Vortrag . . . Frankfurt a. M., Ber. Senckenb. Ges., **1903**, Tl 2, (177-186). [2203]. 50

**Bolan, Hermann.** Ueber den Fang, die Präparation und die Aufbewahrung einheimischer Mollusken. Naturfreund, Witten, **1**, 1902-3, (131, 147, 170-171, 185-186). [2203]. 51

**Boutan, Louis.** L'origine réelle des perles fines. Paris, C.-R. Acad. sci., **187**, 1903, (1073-1075). [2219 2231]. 52

**Brady, G. S.** Report on dredging and other marine research off the north east coast of England in 1901. Newcastle, Trans. Nat. Hist. Soc., **14**, 1903, (87-101). [2227 de 2231 2627 de 2631]. 53

——— *Neomenia carinata* (?) Tullberg. Newcastle, Trans. Nat. Hist. Soc., **14**, 1903, (102). [2231]. 54

**Bridgman, F. G.** On the want of a knowledge of the animals of the genus *Oliya* as a means to the determination of the species. London, Proc. Malac. Soc., **5**, 1903, (346-347). [2231]. 55

**Brookmeier, Heinr.** Wie gewinnen unsere Landschnecken den Kalk für ihre Gehäuse? Naturfreund, Witten, **1**, 1903, (174-176, 182-184). [2219]. 56

**Brown, L. B.** Notes on the land and freshwater shells of Barbadoes. J. Conch., Leeds, **10**, 1903, (266-273). [2227 he 2231]. 57

**Brüning.** *Hydra* und *Limnaea* im Aquarium. Natur u. Haus, Dresden, **11**, 1903, (135-138). [0819 0831 2219 2231]. 58

**Bruyne, C. de.** Contribution à l'étude de la cellule folliculaire des glandes génitales des Gastéropodes. Bruxelles, Bul. Acad. roy., **1903**, (115-135). [2207]. 59

**Buckman, S. S.** Two Toarcian *Ammonites*. London, Q. J. Geol. Soc., **59**, 1903, (459-462, pls. XXVII-XXVIII). [2231]. 60

**Bullen, R. A.** Notes on the Pleistocene non-marine Mollusca at Portland Bill; and on Holocene Mollusca from (1) West Harnham, Wilts; (2) Harlton, Cambridgeshire; (3) the down above Durdle Barn Door, Dorset; and (4) Folkestone. London, Proc. Malac. Soc., **5**, 1903, (317-319). [2227 de]. 61

——— A late Celtic Cemetery at Harlyn Bay. London, 1903, (16). From Tunbridge Wells, Rep. S. E. U. Sci. Soc., 1903. [2227 de]. 62

**Burne, R. H.** On the renal organs of *Nucula nucleus* Linn. London, Proc. Malac. Soc., **5**, 1903, (300-304, pl. X). [2207 2231]. 63

**Button, F. L.** West American *Cypræidae*. J. Conch., Leeds, **10**, 1903, (254-258). [2227 g h 2231]. 64

**Carlson, A. J. v. Jenkins, O[liver]** P[eebles].

**Casey, Thomas L[incoln].** Notes on the Conrad Collection of Vicksburg fossils, with descriptions of new species. Philadelphia, Pa., Proc. Acad. Nat. Sci., **55**, 1903, (261-283). [2231]. 65

**Casiot, commandant.** Comparaison des faunes malacologiques terrestres de la Corse et de la Sardaigne. Feuille jeunes natural., Paris, (sér. 4), **33**, 1902, (10-11); Paris, C.-R. Ass. franç., avanc. sci. (Ajaccio), 1902, (571-576). [2227 df]. 66

Etude sur quelques coquilles de la région circum-méditerranéenne, établie avec le concours de M. Fagot. *Helix niciensis*. Etude des espèces du groupe. Feuille jeunes natural., Paris, (sér. 4), **34**, 1903, (10-13). [2231 2227 df]. 67

*Helix niciensis*. Note complémentaire. Feuille jeunes natural., Paris, (sér. 4), **34**, 1903, (35). [2231]. 68

Liste des mollusques aquatiques vivant dans la Fontaine, à Nîmes. Nîmes, Bul. soc. étud. sci. nat., (n. sér.), **29**, 1901, [1902], (14-19). [2227 df 2219]. 69

**Chadwick, W. H.** Self-fecundation in *Planorbis vortex*. J. Conch., Leeds, **10**, 1903, (265). [2215 2231]. 70

**Chaster, G. W.** Mollusca. In Brit. Assoc. Handbook to Southport, 1903, (146-154). [2203]. 71

and **Tomlin, B.** The rediscovery of *Vertigo lillejorgi* in Ireland. Irish Nat., Dublin, **12**, 1903, (13-14). [2227 de 2231]. 72

**Chemnitz v. Martini.**

**Chun, Carl.** *Rhynchoteuthis* [n. gen.]. Eine merkwürdige Jugendform von Cephalopoden. Zool. Anz., Leipzig, **26**, 1903, (716-717). [2231]. 73

Ueber Leuchtorgane und Augen von Tiefsee-Cephalopoden. Verh. D. zool. Ges., Leipzig, **13**, 1903, (67-91). [2207 2219 2231]. 74

**Clapp, Geo. H.** Exotic Mollusca in the Phipps Conservatory, Schenley Park, Pittsburgh. Pittsburgh, Pa., Ann. Carnegie Mus., **1**, 1901, (252). [2219]. 75

*Vitrina* depositing eggs. Nautilus, Boston, Mass., **17**, 1903, (91). [2219 2231]. 76

**Clarke, John M[ason].** Torsion of the Lamellibranch shell. An illustration of Noetling's law. Albany Univ., N.Y., Bull. St. Mus., No. **69**, 1903, (1228-1233). [2207 2231]. 77

and **Ruedemann, Rudolf.** Guelph fauna in the state of New York [with nn. spp. in Brachiopoda and Mollusca]. Albany Univ., N.Y., Mem. St. Mus., No. **5**, 1903, (195, with pl.). [0227 g 2031 2231]. 78

**Cleland, Herdman Fitzgerald.** A study of the fauna of the Hamilton formation of the Cayuga Lake section in Central New York [with bibliography]. Washington, D.C., U. S. Dept. Int. Bull. Geol. Surv., No. **206**, 1903, (112, with pl.). 23.2 cm. [0227 gg 2227 gg 2231]. 78A

**Cockerell, T[heodore] D[ru] A[lison].** Variations in the snail-genus *Ashmunella*. Philadelphia, Pa., Proc. Acad. Nat. Sci., **55**, 1903, (615-616). [2223 2231]. 79

Note on *Tritonia palmeri* Cooper, 1882. Nautilus, Philadelphia, Pa., **16**, 1903, (117). [2231]. 81

Some homonymous generic names: [*Dallia* Simpson (n. n. *Simpsonella*), *Aurora* Simp. (n. n. *Diaurora*), *Carinella* Mabile, *Geyeria* Buckman, *Paratropeis* Boettger, *Paramenia* Pruvot (n. n. *Pruvotina*), *Ischnodaetylus*, Cossman, and *Gygaenopsis* Rochebrune]. Nautilus, Boston, Mass., **16**, 1903, (118). [2231]. 82

*Ashmunella thomsoniana cooperae* [at Pecos, New Mexico.] Nautilus, Boston, Mass., **17**, 1903, (36). [2227 gi 2231]. 83

and **Cooper, Mary.** Notes on *Ashmunella*. Nautilus, Philadelphia, Pa., **15**, 1902, (109-110). [2231]. 83A

**Collinge, W. E.** Some notes on the genus *Prisma* Simroth. J. Malac., London, **9**, 1902, [1903], (129-132, with pl.). [2231]. 84

**Collinge, W. E.** On some species of slugs collected by Mr. H. Fruhstorfer. *J. Malac.*, London, **10**, 1903, (16-17, pl. 1). [2231]. 85

Notes on slugs and sluglike Molluscs. 1. On the *Limax umbrosus* of Philippi. 2. On a species of *Arion* from New Zealand. 3. On the dispersal of *Microparmarion*, sp. 4. Variations in the foot-fringe of *Arion empiricorum*. *J. Malac.*, London, **10**, 1903, (17-19). [2219 2223 2231]. 86

Contributions to a knowledge of the Mollusca of Borneo. *J. Malac.*, London, **10**, 1903, (79-82, pls. VII, VIII). [2227 *eg* 2231]. 87

Non-operculate Mollusca of Malay Peninsula. Fascic. Malay. Zool., **II**, 1903, (205-216). [2227 *eg* 2231]. 88

**Conklin, Edwin G[rant]**. The individuality of the germ nuclei during the cleavage of the egg of *Crepidula*. [With bibliography]. *Wood's Holl, Mass., Mar. Biol. Lab. Bull.* **2**, 1901, (257-265, with text fig.); [reprint], Philadelphia, Cont. Zool. Lab., Univ. Pa., **1901**, 1902, (257-265, with text fig.). [0215 2215 2231]. 89

Centrosome and sphere in the maturation, fertilization and cleavage of *Crepidula*. [Reprint]. Philadelphia, Cont. Zool. Lab., Univ. Pa., **1901**, 1902, [280]-287, with text fig.). [2215 2231]. 90

**Conte, A. et Bonnet, A.** Sur un nématode nouveau (*Angiostoma helices* n. sp.), parasite de l'appareil génital d'*Helix aspersa* Muell. *Paris, C.-R. soc. biol.*, **55**, 1903, (198-199). [1419 1431 2219 2231]. 91

**Cook, T. A.** Spirals in Nature and Art. London, 1903, (200 with figs.). 8vo. [2207]. 92

**Cooper, Mary v. Cockerell, T[heodore]** D[ru] A[lison].

**Cort, Hugo de.** Ueber den Handelswerth und den Grad der augenblicklichen Seltenheit der *Pleurotomaria beyrichi*. Uebers. aus Bull. soc. r. malacol. d. Belg. **2**, III. 01 . . . v. D. F. Heynemann. Frankfurt a. M., NachrBl. D. malakozool. Ges., **35**, 1903, (14-16). [2203 2231]. 93

**Cossmann, M.** Faune pliocénique de Karikal (Inde française). *J. conchyliol.*, Paris, **51**, 1903, (105-173, av. 4 pls.). [2227 *ef* 2231]. 94

**Oreté de Palluel, Albert.** Ennemis peu connus des oiseaux d'eau. *Ornis*, Paris, **12**, 1902-1903, (118). [2219 5419 5819]. 95

**Crick, G. C.** Note on Dr. J. E. Gray's type-specimens of Jurassic *Ammonites* from India. London, Proc. Malac. Soc., **5**, 1903, (285-289). [2231 2227 *ef*]. 96

On *Ammonites robustus* (R. Strachey, MS.) H. F. Blanford, from the Himalayas. London, Proc. Malac. Soc., **5**, 1903, (290-295, with fig.). [2227 *cf* 2231]. 97

Notes on some specimens of straight-shelled Nautiloidea collected by the Rev. Samuel Couling, M.A., Ching Chow fu, Kiaochow, North China. *Geol. Mag.*, London [4], **10**, 1903, (481-485, pl. XXII). [2231 2227 *ef*]. 98

Note on *Vestinautilus crassimarginatus* A. H. Foord. *Geol. Mag.*, London [4], **10**, 1903, (552-555). [2231]. 99

**Crowther, J. E.** A list of the Mollusca of the Parish of Halifax. Halifax Nat., **8**, 1903, (48-52). [2227 *de*]. 100

**Csik, Ernő.** Drei neue Clausilien aus Ungarn. (Hung.) Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., **1**, 1903, (107-108). [2227 *dk* 2231]. 101

**Dacqué, Edgar.** Mittheilungen über der Kreidecomplex von Abu Roash bei Cairo. Palaeontographica, Stuttgart, **30**, II, 1903, (337-392). [0231 0831 2031 2231]. 102

**Dall, William H[caley]**. Review of the classification of the Cyrenacea. Washington, D.C., Proc. Biol. Soc., **16**, 1903, (5-8). Separate. 23.3 cm. [2231]. 103

Diagnoses of new species of mollusks from the Santa Barbara channel, California. Washington, D.C., Proc. Biol. Soc., **16**, 1903, (171-176). Separate. 23.3 cm. [2227 *g* 2231]. 103a

Synopsis of the family *Astartidae*, with a review of the American species. Washington, D.C., Smithsonian Inst., Nation. Mus. Proc., **26**, 1903, (933-951, with 2 pls.). Separate. 24.3 cm. [2231]. 104

Synopsis of the Carditacea and of the American species [with bibliography]. Philadelphia, Pa., Proc. Acad. Nat. Sci., **54**, 1902, 1903, (696-716). [2227 *gh* 2231]. 105

**Dall, William H[ea]ley.** Contributions to the Tertiary fauna of Florida, with especial reference to the siliceous beds of Tampa and the Pliocene beds of the Caloosahatchie river. Part 6, concluding the work [Pelecypoda (concluded) and Brachiopoda, with discussion of geology]. Philadelphia, Pa., Trans. Wagner Free Inst. Sci., **3**, 1903, ((i-xiv) + (1219-1654), with pl.). Separate. 28.5 cm. [2227 gh 2031 2227 gh 2231]. 106

— [Miodontiscus n. n. (= Miodon Carpenter, preoccupied by Miodon Duméril)]. Nautilus, Philadelphia, Pa., **16**, 1903, (143). [2231]. 107

— Two new mollusks from the west coast of America. [*Sigaretus noyesi* n. sp. from Colombia and *Tonicia arnheimi* n. sp. from Galapagos Islands]. Nautilus, Boston, Mass., **17**, 1903, (37-38). [2227 he nq 2231]. 108

— A new species of *Melzgeria*. [*M. californica* n. sp.]. Nautilus, Boston, Mass., **17**, 1903, (51-52). [2231]. 110

— Note on the family *Sep-tidae*. Nautilus, Boston, Mass., **17**, 1903, (55-56). [2231]. 111

— A new genus of *Trochidae* [from Hawaii] [*Stylobates aeneus* n. gen. and sp.]. Nautilus, Boston, Mass., **17**, 1903, (61-62). [2227 nd 2231]. 112

**Daniels, L. E.** A check list of Indiana Mollusca, with localities. Indiana, Rep. Dept. Geol. Nat. Res., Indianapolis, **27**, 1902, [1903], (629-652). [2227 gg]. 113

— v. Blatchley, W[illie] S[tanley].

**Dautzenberg, Ph.** Revision des *Cypræidae* de la Nouvelle-Calédonie. J. conchyliol., Paris, **50**, 1902, (291-384, av. 1 pl.). [2231 2227 il]. 114

— Contribution à la faune malacologique terrestre et d'eau douce des îles Obi et Iolo. J. conchyliol., Paris, **51**, 1903, (5-20, av. 1 pl. et fig.). [2227 eg 2231]. 115

— Description de mollusques nouveaux provenant de l'île Obi (Molouques). Naturaliste, Paris, (sér. 2), **24**, 1902, (247-248, av. fig.). [2231 2227 ia]. 116

— Description de trois mollusques nouveaux provenant de l'état indépendant du Congo. Bruxelles, Ann. Soc. roy. malac., **26**, 1901, (3-7). [2227 fd 2231]. 117

**Davenport, C[harles] B[enedict].** Quantitative studies in the evolution of *Pecten*. III. Comparison of *Pecten opercularis* from three different localities of the British isles. Boston, Mass., Proc. Amer. Acad. Arts Sci., **39**, 1903, (121-159). [2223 2331]. 118

**Davis, C. A. v. Hale, D. J.**

**Davis, J. R. A. and Fleure, H. J.** L. M. B. C. Memoirs on Typical British Marine Plants and Animals. No. x. *Patella* (the Common Limpet). London, 1903, (84, with 4 pls.). 8vo. [2207 2231]. 119

**Dean, Bashford.** Japanese oyster-culture. Washington, D.C., Bull. U. S. Fish Com., **22**, (1902), 1903, (13-37, with text fig. and pl.). [2203 2227 ec 2231]. 120

**Diener, C.** Palaeontologia Indica. Series XV. Himalayan Fossils. Vol. II. Part I. The Cephalopoda of the Lower Trias. Calcutta (Geol. Survey Office). London (Kegan Paul & Co.) (1-181, pls. i-xxiii). [Review], Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1902, (241-244). [2227 ef 2231]. 121

**Digby, L.** Preliminary note on the anatomy of the genus *Cataulus*. London, Proc. Malac. Soc., **5**, 1903, (261). [2207 2231]. 122

**Dimon, A. C.** Quantitative study of the effects of environment upon the forms of *Nassa obsoleta* and *N. trivittata* from Cold Spring Harbour, Long Island. Biometrika, Cambridge, **2**, 1903, (24-43). [2223 2231]. 123

**Dollfus, Gustave, F.** Une grande Vénus du miocène supérieur de l'Anjou. J. conchyliol., Paris, **50**, 1902, (423-428). [2231]. 124

**Drevermann, F.** Die Fauna der oberdevonischen Tuffbreccie von Langenau bei Haiger. Berlin, Jahrb. geol. Landesanst., **21**, 1901, Abh. auss. St. Pers., (99-207, mit 5 Taf.). [0231 2031 2231 2831]. 125

**Drummond, J. M.** Notes on the development of *Paludina vivipara*, with special reference to the urinogenital organs and theories of Gastropod torsion. Q. J. Microsc. Sci., London, (Ser. 2), **46**, 1903, (97-143, with 3 pls.). [2215 2231]. 126

**Dubois, Raphael.** Sur la formation de la pourpre de *Purpura lapillus*. Paris, C.-R. Acad. sci., **136**, 1903, (117-118). [2211 2231]. 127

——— L'origine des perles chez le *Mytilus gallo-provincialis*. Paris, C.-R. Acad. sci., **136**, 1903, (178-179). [2219 2231]. 128

——— Sur l'acclimatation et la culture des Pintadines ou hultres perlières vraies, sur les côtes de France et sur la production forcée des perles fines. Paris, C.-R. Acad. sci., **137**, 1903, (611-613). [2219 2231]. 129

——— Sur le venin de la glande à pourpre des *Murex*. Paris, C.-R. soc. biol., **55**, 1903, (81). [2211 2231]. 130

——— Sur la purpurase de *Purpura*; à propos d'une Note de M. A. Letellier. Paris, C.-R. soc. biol., **55**, 1903, (82). [2211 2231]. 131

**Dytowski, W.** Beschreibung einer neuen Süßwasser-Schnecke *Limnaea (Limnaea) lagorii* n. sp. St. Petersburg, Bull. Ac. Sc., (5 F.), **18**, No. 3, 1903, (113-116, mit 6 Figs.). [2231]. 132

——— Beitrag zur Kenntniss der Molluskenfauna Kamtschatkas. St. Petersburg, Ann. Mus. zool. Ac. Sc., **8**, 1903, (40-55, mit 8 figs.). [2227 ea 2231]. 133

——— Zur Kenntniss der ostasiatischen Landschnecken. Frankfurt a. M., NachrBl. D. malakozool. Ges., **35**, 1903, (7-10). [2227 ea 2231]. 134

——— Fauna der Binnenmollusken Littauens. I. Familia *Cycladidae* Clessin. Frankfurt a. M., NachrBl. D. malakozool. Ges., **35**, 1903, (76-83). [2227 db 2231]. 135

——— Bemerkungen über die gegenwärtige Systematik der Süßwasserschnecken. Frankfurt a. M., NachrBl. D. malakozool. Ges., **35**, 1903, (130-145). [2231]. 136

——— v. Dybovskij, W.

**Elliot, Sir C.** On some Nudibranchs from East Africa and Zanzibar. London, Proc. Zool. Soc., **1903**, 2, (250-385). [2207 2227 ff 2231]. 137

——— Notes on some new or little-known members of the family *Doridiidae*. London, Proc. Malac. Soc., **5**, 1903, (331-337, pl. XIII). [2231]. 138

**Elliot, Sir C.** Nudibranchiata, with some remarks on the families and genera, and description of a new genus, *Doridomorpha*. In Fauna and Geography of the Maldives and Laccadive Archipelagoes, Vol. ii, 1903, (540-573, pl. XXXII). [2227 ma 2231]. 139

**Elrod, Morton J[ohn].** Notes on *Pyramidula elrodi* Pils. Nautilus, Philadelphia, Pa., **16**, 1903, (109-112). [2231]. 140

——— Montana shells—*Pyramidula strigosa*. Nautilus, Boston, Mass., **17**, 1903, (1-6). [2227 gi 2231]. 141

——— Montana shells. Nature study lesson. Missoula, Bull. Univ. Mont., No. 17, Biol. Ser. No. 5, 1903, (255-262, with pl.). [2203 2227 gi]. 142

**Enriques, P.** Ricerche osmotiche sulla *Limnaea stagnalis*. Roma, Rend. Acc. Lincei, (Ser. 5), **11**, 1° Sem., 1902, (440-448). [2211 2231]. 143

——— Le foie des mollusques et ses fonctions. (Résumé). Arch. ital. biol., Torino, **37**, 1902, (177-199). [2207 2211]. 144

**Evans, W.** *Helix lamellata* Jeff., in Midlothian, and *Planorbis spirorbis* Mull., in Fife. Ann. Scot. Nat. Hist., Edinburgh, **1903**, (120-121). [2227 de 2231]. 145

**Evermann, Barton Warren and Goldborough, Edmund Lee.** Notes on the fishes and molluscs of Lake Chautauqua, New York. Washington, D.C., Rep. U. S. Com. Fish, **1901**, 1902, (169-175). [2227 gg 5427 gg]. 146

——— Notes on the fishes and mollusks of Lake Chautauqua, New York. New York, Forest Fish Game Com. Rep. Albany, **1900**, 1901, (357-366, with col. pl. and text-fig.). [2227 gg 5427 gg]. 147

**Fahringer, Josef.** Ueber das Vorkommen einer Speicherniere bei *Carinaria mediterranea* Per. u. Les. Zool. Anz., Leipzig, **27**, 1903, (7-12). [2231 2207]. 148

**Fall, Delos v. Hale, D. J.**

**Farran, G. P.** The Nudibranchiate Molluscs of Ballynakill and Bofin Harbours, Co. Galway. Rep. Fish. Ireland for 1901, Part II, (123-132, pls. XVIII-XIX). [2227 de 2231]. 149

- Faussek, V.** Parasitismus der *Anodonta*-Larven (Russ.) St. Petersburg, Mém. Ac. Sc., (8 F.), 13, No. 6, 1903, (132), mit dtischer Tafelerklärung (133-141, mit 8 Taf.). [2219 2231 5419 5619]. 150
- Ficalbi, E.** *Doratosia vermicularis* e larva di *Chiroteuthis veranyi*. Mon. Zool. ital., Firenze, 13, 1902, (37-39). [2231]. 151
- Fischer, H.** A propos du type de l'*Helix prunum* Férussac. J. conchyliol., Paris, 50, 1902, (385-386). [2231]. 152
- Description d'un *Oliva* nouveau provenant des Nouvelles-Hébrides. J. conchyliol., Paris, 50, 1902, (409-411, av. fig. et pl.) [2227 il 2231]. 153
- et Chatelet, C. Description d'une espèce nouvelle du genre *Glandina*. J. conchyliol., Paris, 51, 1903, (321-322, av. fig. et pl.) [2231 2227 ha]. 154
- Fleure, H. J. v. Davis, J. R. A.**
- Forel, F[ranc]ois A[lphonse].** Mouette et anodonte. Lausanne, Bul. Soc. Sci. Nat., 38, 1902, (XXI); Arch. Sci. Phys., Genève, (sér. 4), 13, 1902, (605). [2219 2231 5831]. 155
- Franz, Viktor.** Ueber „*Nautilus bidorsatus*“ und seine Verwandten. N. Jahrb. Min., Stuttgart, Beilagebd 17, 1903, (486-497). [2231]. 156
- Frierson, L. S.** The specific value of *Unio declivis*, Say. Nautilus, Boston, Mass., 17, 1903, (49-51, with pl.). [2231]. 157
- Observations on the byssus of *Unionidae*. Nautilus, Boston, Mass., 17, 1903, (76-77). [2207 2231]. 158
- Fritel, P. H.** Céphalopodes fossiles. Les Ammonées. Naturaliste, Paris, (sér. 2), 25, 1903, (65-68, 113-115, av. fig.). [2231]. 159
- Fulton, H.** Figures and descriptions of supposed new species and varieties of *Ennea*, *Macrochlamys*, *Cochlostyla*, *Strophocheilus* (*Rorus*), *Odontostomus*, (*Moricaudia*), *Leptopoma*, *Cataulus*, *Coptocheilus*, and *Tropidophora*. J. Malac., London, 10, 1903, (99-103, pl. IX). [2231]. 160
- v. Sowerby, G. B.
- Garjajev, V. P.** Bericht über eine Reise zur Untersuchung der Evertebratenfauna des Baikal-Sees im Sommer 1900 u. 1901. (Russ.) St. Petersburg, Trd. Troick-Křacht. Otd. Russ. Geogr. Obsč., V, 2, 1902, [1903], (27-48, mit 1 Karte). [0627 1227 1827 2027 2227 2627 0631 1231 1831 2031 2231 2631]. 161
- Garstang, W. and Sorby, H. C.** Mollusca (part of Marine Zoology). In the Victoria County History of Essex, Vol. 1, (81-86). [2227 de]. 162
- Gatlif, J. H.** Additions to the lists of Victorian marine Mollusca. [41 species.] Vict. Nat., Melbourne, 20, 1903, (89-91). [2227 if 2231]. 163
- v. Pritchard, G. B.
- Geret, P.** Variété nouvelle de *Cypraea* provenant de la Nouvelle-Calédonie. J. conchyliol., Paris, 51, 1903, (28). [2231 2223 2227 il]. 164
- Germain, Louis.** Etude sur les mollusques terrestres et fluviatiles vivants des environs d'Angers et du département de Maine-et-Loire. Nantes, Bul. soc. sci. nat., (sér. 2, 3), 13, 1903 (1-112). [2227 df 2231]. 165
- Gessard, C.** Sur les oxydases des seiches. Paris, C.-R. Acad. sci., 136, 1903, (631-632). [2211 2231]. 166
- Geyer.** Malakologische Streifzüge in Württemberg. Stuttgart, Jahreshefte Ver. Natk., 59, 1903, (315-324). [2227 de]. 167
- Ghigi, [Alessandro].** Il nidamento della *Tiedemannia neapolitana*. Mon. zool. ital., Firenze, 13, 1902, (Supplemento), (24-27, con 2 fig.). [2219 2231]. 168
- Giard.** Curieuse station de *Theodoxia fluviatilis* L. Feuille jeunes natural., Paris, (sér. 4), 33, 1903, (223). [2219 2231]. 169
- Gill, E. L.** Note on the occurrence of Keisley Limestone-Pebbles in the red sandstone-rocks of Peel (Isle of Man). London, Q. J. Geol. Soc., 59, 1903, (307-310). [2827 de 2027 de 1027 de 2227 de 0827 de]. 170
- Girardot, Abel v. Lorient, P[er]ceval[de].**
- Glamann, G.** Anatomisch-systematische Beiträge zur Kenntniss der Tracheopulmonaten. Zool. Jahrb., Jena, Abt. f. Anat., 17, 1903, (679-762, mit 6 Taf.). [2207 2231]. 171

**Glaser**, O[tto] C. The nematocysts of nudibranch molluscs. Baltimore, Md., Johns Hopkins Univ. Cir., **22**, 1903, (22-24). [2207 2231]. 172

**Godfrey**, R. *Vertigo pygmaea*, etc., in Mid Perth. Ann. Scot. Nat. Hist., Edinburgh, **1903**, (246). [2231]. 173

**Godwin-Austen**, H. H. On the anatomy of two land Molluscs (*Helicarion* (?) *willejana* and *H. (?) woodwardi*, n. spp.) from New Britain and Lifu, Loyalty Islands, collected by Dr. Arthur Willey, F.R.S., in 1895-97. London, Proc. Malac. Soc., **5**, 1903, (296-299, pl. IX). [2207 2227 il 2231]. 174

Further description of the animal of *Damayantia carinata* Collinge, shewing its similarity to *D. smithi* Collinge and G.-A., with remarks on this genus of Issel, *Collingea* of Simroth, and *Isselentia* of Collinge. London, Proc. Malac. Soc., **5**, 1903, (311-316, pl. XI). [2207 2231]. 175

Morphological observations on species belonging to the families *Cyclostomidae* and *Helicidae*. In "The Nat. Hist. Sokotra and Abd-el-Kuri," edited by H. O. Forbes (159-174, pl. XIIIa). [2207 2231]. 176

**Goldsborough**, Edmund Lee v. Evermann, Barton Warren.

**Grabau**, Amadeus W. Studies of Gastropoda. 2, *Fulgur* and *Sycotypus*. Amer. Nat., Boston, Mass., **37**, 1903, (515-539). [2223 2231]. 177

**Granger**, Albert. Revision des espèces françaises du genre *Helix*. Bordeaux, Actes soc. linn., **58**, 1903, (1-60). [2231 2227 df]. 178

**Gratcap**, I[ouis] P[o]pe. Catalogue of the Binney and Bland collection of the terrestrial air-breathing mollusks of the United States and territories in the American museum of Natural History, with enumeration of types and figured specimens, and supplementary notes. New York, N.Y., Bull. Amer. Mus. Nat. Hist., **14**, 1901, (335-403, with 6 maps). Separate. 23.5 cm. [2227 gf 2231]. 179

**Gravier**, Ch. Sur le système nerveux du Nautilus. Paris, C.-R. Acad. sci., **136**, 1903, (618-621, av. fig.). [2207 2231]. 180

v. Perrier, E.

(N 2-9053)

**Gredler**, Vinc[enz]. Localer Beitrag zur Conchylienfauna von Kärnten. Carinthia II, Klagenfurt, **92**, 1902, (156-158). [2227 dk]. 181

**Grierson**, P. H. Notes on the Mollusca of Co. Kilkenny. Irish Nat., Dublin, **12**, 1903, (307-311). [2227 de]. 182

**Griffin**, Lawrence Edmonds. The anatomy of *Nautilus pompilius* [with bibliography]. . . . Dissertation . . . Ph.D. . . . Johns Hopkins Univ. (Reprinted from the Memoirs of the National Academy of Sciences). Baltimore, Md., Mem. Biol. Lab., Johns Hopkins Univ., **5**, 1903, (1-230, with 17 pls.). [2207 2231]. 183

**Gude**, G. K. Descriptions of some new forms of helicoid land-shells. London, Proc. Malac. Soc., **5**, 1903, (262-266, pl. VII). [2231]. 184

Additions to the genus *Streptaxis*. London, Proc. Malac. Soc., **5**, 1903, (322-327, pl. XII). [2231]. 185

A classified list of the helicoid land shells of Asia. J. Malac., London, **10**, 1903, (5-16, 45-62, 83-98, 129-136, pl. III). [2227 e 2231]. 186

**Günther**, R. On the structure and affinities of *Menestera parasites* Krohn; with a revision of the classification of the *Cladonemidae*. Mitt. Zool. Stat. Neapel, Berlin, **16**, 1903, (35-64, mit 2 Taf., 280). [0831 0819 2219 2231]. 187

**Hale**, David J. and others. [C. A. Davis, Bryant Walker, B. B. Lathbury, A. C. Lane, Delos Fall and Richard L. Humphrey]. Marl (bog lime) and its application to the manufacture of Portland cement. Michigan, Geol. Surv. Lansing, **8**, Part 3, 1903, (XI + 399, with 23 pls. and 45 figs.). [2203]. 188

**Hamilton**, S. H. Habits of *Acanthopleura granulata* [showing development of megalapores]. Nautilus, Philadelphia, Pa., **16**, 1903, (138). [2219 2231]. 189

**Hamlyn-Harris**, Ronald. Die Statocysten der Cephalopoden. Zool. Jahrb., Jena, Abt. f. Anat., **18**, 1903, (327-358, mit 5 Taf.). [2207 2231]. 190

**Hamy**, E. T. Une rocaille [en *Strombus*] du vieux Marly. Bul. Muséum, Paris, **1903**, (55-56). [2203]. 191



- Heath, Harold.** The function of the *Chiton* subradular organ. *Anat. Anz.*, Jena, **23**, 1903, (92-95). [2211 2231]. 192
- Hedley, C.** Studies on Australian Mollusca. Part VII. Sydney, N.S.W., *Proc. Linn. Soc. N. S. Wales*, **27**, (1902), 1903, (596-619, with 4 pls.). [2231 2227 i]. 193
- The effect of the Bassian *Isthmus* upon the existing Marine Fauna; a study in ancient geography. Sydney, N.S.W., *Proc. Linn. Soc. N. S. Wales*, **28**, 1903, (876-883, with 1 map). [2227 ic]. 194
- Mollusca. Part II. Scaphopoda and Gastropoda. Scientific results of the trawling expedition of H.M.C.S. "Thetis" off the coast of New South Wales in February and March, 1898. Sydney, N.S.W., *Mem. Austr. Mus.*, **4**, 1903, (327-402, with 3 pls. and 53 text-figs.). [2227 ic 2231]. 195
- The Mollusca. Notes on the Zoology of Paanopa or Ocean Island and Nauru or Pleasant Island, Gilbert Group. Sydney, N.S.W., *Rec. Austr. Mus.*, **5**, 1903, (4, 5). [2227 ib]. 196
- Herdman, W. A.** The biological station at Port Erin, being the 16th annual report of the Liverpool Marine Biology Committee. Liverpool, *Trans. Biol. Soc.*, **17**, 1903, (15-67). [0827 de 5427 de 2227 de 2627 de 1227 de 1803]. 197
- The Pearl Fisheries of Ceylon. Nature, London, **68**, 1903, (620-622). [2203]. 198
- The pearl oyster parasite in Ceylon. Nature, London, **69**, 1903, (126-127). [2219]. 199
- Report to the Government of Ceylon on the Pearl Oyster Fisheries of the Gulf of Manaar. Part I. Pearl Oyster Report. London, 1903, (146). 4to. [2203 2219 2231]. 200
- Hersche v. Heuscher, J.**
- Hescheler, Carl.** Der gemeine Tintenfisch (*Sepia officinalis* L.) Zürich, *Neujahrbl. Natf. Ges.*, **104**, 1902. [2203 2231]. 201
- *Sepia officinalis* L. Der gemeine Tintenfisch. Ein Beispiel der Untersuchung eines Tieres auf vergleichend-anatomischer Grundlage. Zurich, (Zürcher & Furrer), 1902, (IV + 40, mit 2 Taf. und 11 Fig.). 4to. [2207 2231]. 202
- Hey, W. C.** Shore-collecting near Scarborough and Filey. *Naturalist*, London, **1903**, (344-348). [2627 de 1027 de 2227 de]. 203
- Hind, W.** On a new species of *Solenopsis* [*Solenomorpha*] from the Pendleside Series of Hodder Place, Stonyhurst (Lancashire). London, *Q. J. Geol. Soc.*, **59**, 1903, (334-336, with fig.). [2227 de 2231]. 204
- A Monograph of the British Carboniferous Lamellibranchiata. Vol. II. London, *Monogr. Palaeont. Soc.*, **1903**, (35-124, pls. VII-XXI). [2231]. 205
- Life-zones in the British Carboniferous Rocks. Report of the Committee. London, *Rep. Brit. Ass.*, **1902**, (210-224). [1027 de 5427 de 2027 de 2227 de]. 206
- Hinkley, A. A.** A proposed study of *Goniobasis*. *Nautilus*, Boston, Mass., **17**, 1903, (32-34). [2231]. 207
- Hirase, Y.** Catalogue of land shells of Japan to be had of Y. Hirase. Shimochōja-Machi, Karasumaru, Kijota, Japan, 1903, ([1]-24, with pl.). *Nautilus*, Philadelphia, Pa., **16**, 1903. [2227 cc 2231]. 208
- v. Pilabry, H[enry] A[ugustine].
- Hollerbach, Christoph.** Linse und Corpus epitheliale im Cephalopodenauge und ihre Entwicklung. Bern *Vet.-med. Diss.* 1903-1904. Oppenheim a. Rh. s.a., (40, 2 Taf.). 8vo. [2207 2231]. 209
- Holt, E. W. L.** The public oyster beds on the coasts of Counties Wicklow and Wexford. *Rep. Fish. Ireland* for 1901, Part II, (4-36). [2203]. 210
- A Norwegian method of Oyster culture (Translations of papers and reports in Norwegian). *Rep. Fish. Ireland* for 1901, Part II, (77-103, with 10 pls.). [2203]. 211
- Hoyle, W. E.** Notes on the type specimen of *Loligo eblanac* Ball. Manchester, *Mem. Lit. Phil. Soc.*, **47**, No. 9, 1903, (10, with 1 pl.); also issued as Notes Manchester Mus., No. 14. [2231]. 212
- Humphrey, R. L. v. Hale, D. J.**

**Hunt, A. R.** Notes and comments on the raised beaches of Torbay and Shark-ham Point. Plymouth, Trans. Devon Ass., **35**, 1903, (318-337). [2227 *de*]. 213

**Hyatt, Alpheus.** *Pseudoceratites* of the Cretaceous. Edited by T. W. Stanton [with bibliography]. Washington, D.C., Dept. Int. U.S. Geol. Surv. Monogr., **44**, 1903, (351 + iii, with pl.). 30 cm. [2231]. 214

**Issel, Raffaele.** Ancistridi del Golfo di Napoli. Studio monografico sopra una nuova famiglia di Cigliati, comuniensali di molluschi marini. Mitt. zool. Stat. Neapel, Berlin, **16**, 1903, (63-108, mit 2 Taf.). [0431 0419 2219]. 215

**Jaout, [E.].** Etude sur les mollusques. Messager Suisse Rom., Fribourg, **16**, 1903, (132-133, 140-141, 173-174, 188). [2203 2231]. 216

**Janensch, Werner.** Die Jurensischichten des Elsass. Diss. Strassburg i. E. (Strassb. Druckerei u. Verlagsanst.), 1902, (153, mit 12 Taf.). 26 cm. [= Abh. geol. Specialkarte Els.-Lothr. (N. F.), H. 5.] [2227 *de*]. 217

**Jenkins, Oliver Peebles and Carlson, A. J.** The rate of nervous impulse in certain Molluscs. Amer. J. Physiol., Boston, Mass., **8**, 1903, (251-268). [2211]. 218

**Johansen, A. C.** Remarks on the molluscan fauna (in marine diluvium near Hostrup in Salling). (Danish) Kjöbenhavn, Nath. Medd., **1903**, (124-131). [2227 *da*]. 219

**Johnson, Chas. W.** Some notes on the genus *Fulgur*. Nautilus, Boston, Mass., **17**, 1903, (73-75). [2231]. 220

**Johnson, J. P.** Notes on fossil and recent shells obtained on a visit to Cornwall. Geol. Mag., London, [4], **10**, 1903, (25-28). [2203 2227 *de*]. 221

**Joubin.** Sur quelques céphalopodes recueillis pendant la dernière campagne de S. A. S. le Prince de Monaco (1901-1902). Paris, C.-R. Acad. sci., **136**, 1903, (100-102). [2231]. 222

**Jukes-Browne, A. J.** Devonshire in the time of the Lower Chalk. Plymouth, Rep. Devon. Ass., **35**, 1903, (787-799, 1 pl.). [1027 *de* 2027 *de* 2227 *de*]. 223

——— The Cretaceous Rocks of Britain. Vol. II. The Lower and (x 2-0053)

Middle Chalk of England. Mem. geol. Surv. U. K., London, **1903**, (xiii + 568). [0127 *de* 2027 *de* 0627 *de* 2227 *de*]. 224

**Karpov, Vladimir.** Bericht über eine Reise an das Schwarze Meer zum Studium der Austernwirtschaft. (Russ.) Vést. rybopromysl., St. Peterburg, **1903**, **18**, (260-345). [2203 2231]. 225

**Keer, [Paul] M[artinus].** Beitrag zur Kenntnis des Schiffsbohrwurmes. (Holländisch) Leiden (P. W. M. Trap), 1903, (58, mit 4 Taf.). 29 cm. [2207 2231]. 226

**Kellogg, James L.** Feeding habits and growth of *Venus mercenaria*. Albany Univ., N.Y., Bull. St. Mus., No. **17**, 1903, (27, with pl.). [2219 2231]. 227

**Kennard, A. S.** Observations on the organic remains and the nature of the soil associated with the Pile Structures in the Walbrook near London Wall. Archaeol. J., London, **60**, 1903, (230-235). [2227 *de*]. 228

——— and **Warren, S. H.** The Blown Sands and Associated Deposits of Towan Head, near Newquay, Cornwall. Geol. Mag., London, [4], **10**, 1903, (19-25). [2227 *de*]. 229

——— On a section of the Thames Alluvium in Bermondsey. Geol. Mag., London, [4], **10**, 1903, (456-460, 525). [2227 *de* 6027 *de* 4227 *de*]. 230

——— and **Woodward, B. B.** Mollusca. In "The Exploration of the Caves of Kesh, County Sligo." Dublin, Trans. R. Irish Acad., **32**, 1903, (181-183). [2227 *de*]. 231

——— On the occurrence of *Neritina grateloupiana* Fér. (hitherto misidentified as *N. fluviatilis*) in the Pleistocene gravels of the Thames at Swanscomb. London, Proc. Malac. Soc., **5**, 1903, (320-321). [2227 *de* 2231]. 232

——— The non-marine Mollusca of the River Lea Alluvium at Walthamstow. Stratford, Essex Nat., **13**, 1903, (13-21, 115-116, with figs.). [2227 *de* 2231]. 233

——— Notes on sections in the Lea Valley at Canning Town. Stratford, Essex Nat., **13**, 1903, (77-79). [2227 *de*]. 234

- Kennard, A. S. and Woodward, B. B.** Note on the occurrence of freshwater Mollusca in a water-main at Poplar. *Stratford. Essex Nat.*, **13**, 1903, (80-81). [2219 2231]. 235
- Holocene deposits at Clifton Hampden, near Oxford. II. Zoology. Mollusca. Gloucester, Proc. Cotteswold Nat. F. Cl., **14**, 1903, (198-203). [2227 de]. 236
- Kesteven, H. Leighton.** Notes on Prosobranchiata. No. ii. Littorinacea. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, **27**, (1902), 1903, (620-636, with 1 pl.); No. iii. The neanic shell of *Melo diadema*, Lamk., and the definition of the nepionic stage in the Gasteropod Mollusc. *ib.* **28**, 1903, (443-452). [2207 2215 2231]. 237
- Kew, H. W.** Note on a two-banded shell of *Helicigona arbustorum* from Wensleydale. *Naturalist*, London, **1903**, (341-342, with fig.). [2223 2231]. 238
- Snails and spiders on towers. *Naturalist*, London, **1903**, (342-343). [2219 3019]. 239
- Knipović, N. M.** Zoologische Ergebnisse der russischen Expeditionen nach Spitzbergen. Mollusca und Brachiopoda IV Nachtrag. St. Petersburg, Ann. Mus. Zool. Ac. Sc., **8**, 1903, (133-143). [2027 kd 2031 2227 kd 2231]. 240
- Kobelt, W[ilhelm].** Diagnosen neuer *Cerastus*-Arten. Frankfurt a. M., NachrBl. D. malakozool. Ges., **35**, 1903, (33-35). [2231]. 241
- Diagnosen neuer Arten. Frankfurt a. M., NachrBl. D. malakozool. Ges., **35**, 1903, (88-91, 145-151). [2231]. 242
- Diagnose eines neuen *Comulinus*. [*C. tener* n. sp.] Frankfurt a. M., NachrBl. D. malakozool. Ges., **35**, 1903, (91). [2231]. 243
- Unsere Kenntnis der Fauna europaea. Frankfurt a. M., NachrBl. D. malakozool. Ges., **35**, 1903, (113-121). [2227 d]. 244
- Otto Franz von Mülendorff. J. Malac., London, **10**, 1903, (122-125, pl. XI). [0010 2203]. 245
- und Mülendorff, O[tto] von. Catalog der Familie Buliminidae. Frankfurt a. M., NachrBl. D. malakozool. Ges., **35**, 1903, (36-60, 65-71). [2231]. 246
- Koehler, R. et C. Vaney, C.** *Entosiphon deimatis*, nouveau mollusque parasite d'une Holothurie abyssale. *Rev. Suisse Zool.*, Genève, **11**, 1903, (23-41, 1 pl.). [2219 2231 1019 1031]. 247
- Kormos, Tivodar.** Paläontologische Mitteilungen. (Ungarisch und Deutsch) Földt. Közl., Budapest, **33**, 1903, (451-462, 496-508, Taf. XIII). [2231]. 248
- Krogh, A.** On shells floating on the surface of the sea. London, Proc. Malac. Soc., **5**, 1903, (341-342). [2219]. 249
- Künkel, Karl.** Zur Locomotion unserer Nacktschnecken. *Zool. Anz.*, Leipzig, **26**, 1903, (566-568). [2211 2219]. 250
- Zuchtversuche mit linksgewundenen Weinbergschnecken (*Helix pomatia*). *Zool. Anz.*, Leipzig, **26**, 1903, (656-664). [2223 2231]. 251
- Kwistniewski, C.** Alcune osservazione intorno agli Pteropodi Gimnosomi del Mare Mediterraneo. Padova, Atti Soc. ven. trent., (Ser. 2), **4**, fasc. 2<sup>a</sup>, (1900-1902), 1902, (39-58). [2231 2227 dh dm]. 252
- Lamoere.** Discours du président sur l'évolution des mollusques. Bruxelles, Bul. soc. roy. malac., **38**, 1903, (XXX-XLVI). [2223]. 253
- Lamplugh, G. W.** *Belemnites* of Farringdon "Sponge-Gravels." *Geol. Mag.*, London, [4], **10**, 1903, (32-34). [2231]. 254
- Lamy, Ed.** De l'identité d'une Arche figurée par Savigny (*Arca pharaonis* P. Fischer), avec l'*A. ehrenbergi*. J. conchyliol., Paris, **51**, 1903, (323-325). [2231]. 255
- Sur le prétendu genre *Savignyarea* Jousseau (Lamelli-branche). Bul. Muséum, Paris, **1903**, (140-142). [2231]. 256
- Lane, A. C. v. Hale, D. J.**
- Lang, W. D.** On a fossiliferous bed in the Selbornian of Charmouth. *Geol. Mag.*, London, [4], **10**, 1903, (388-392, with 1 fig.). [2027 de 2227 de 1827 de 0827 de]. 257
- Lathbury, B. B. v. Hale, D. J.**
- Latter, O. H.** The nervous system of *Anodonta cygnea*. *Nature*, London, **68**, 1903, (623). [2207 2231]. 258

- Lawessari.** Liste des coquilles recueillies au Val-André (Côtes-du-Nord). *J. conchyliol.*, Paris, **51**, 1903, (29-34). [2227 *df* 2231]. 259
- Léger, Louis.** Sporozoaire parasite des moules et autres Lamellibranches comestibles. Paris, C.-R. Acad. sci., **137**, 1903, (1003-1005). [0419 0431 2219]. 260
- Leussen, J.** Système nerveux, système circulaire, système respiratoire et système excréteur de la *Neritina fluviatilis* (fragments d'un travail monographique sur cette espèce). Louvain (A. Uystpruyt), Liège (J. Van In et Cie), 1903; Cellule, Louvain. **20**, 1903, (287-333, pls. I-III). [2207 2231]. 261
- Letacq, A. L.** Liste des mollusques recueillis dans les cantons de Fresnay et de Saint-Paterne. Mans (le), *Bul. soc. agricult.* (sér. 2, **30**), **38**, 1901-1902, (136-143). [2231 2227 *df*]. 262
- List, Theodor.** Die Mytiliden des Golfes von Neapel und der angrenzenden Meeres-Abschnitte. Tl 1. (Fauna und Flora des Golfes von Neapel. 27. Monographie [Jg 20.]) Berlin, 1902, (X + 312, mit 22 Taf.). 33 cm. 120 M. [2231 2207]. 263
- Lo Bianco, Salvatore.** Le pesche abissali eseguite da F. A. Krupp col Yacht "Puritan" nelle adiacenze di Capri ed in altre località del Mediterraneo. Mitt. zool. Stat. Neapel, Berlin, **16**, 1903, (109-279, mit 3 Taf.). [0219 0227 *dm* 0231 0431 1631 2231 2631]. 264
- Locard, Arnould.** Description de mollusques nouveaux appartenant à la faune souterraine de France et d'Italie. *Bul. Museum, Paris*, **1902**, (608-611, av. fig.). [2219 2227 *df dh* 2231]. 265
- Description d'une nouvelle espèce de *Lartetia*. Nîmes, *Bul. soc. étud. sc. nat.* (n. sér.), **29**, 1901, [1902], (10-13). [2231]. 266
- Notices conchyliologiques, LVII. Les Pteropodes testacés des mers d'Europe. *Echange, Lyon*, **1902**, (67-68, 74-75). [2231 2227 *d*]. 267
- Notices conchyliologiques. *Echange, Lyon*, **19**, 1903, (95-96, 101-103, 110-111). [2231]. 268
- Loeb, Jacques.** Artificial parthenogenesis in Molluscs. Berkeley, Univ. Cal. Pub. Physiol., **1**, 1903, (7-9). Separate. 26.5 cm. [0211 0215 2215]. 269
- Lomas, J.** Report on the Sea bottoms and Calcretes, collected by Prof. Herdman. In: Report Pearl Oyster Fisheries of the Gulf of Manaar. London, 1903, (147-162). [2227 *ef* 0427 *ef*]. 270
- Loomis, F. B.** The dwarf fauna of the pyrite layer at the horizon of the Tully limestone in Western New York. Albany Univ., N.Y., *Bull. St. Mus.*, No. **69**, 1903, (892-920, with 5 pls.). [0227 *gg* 2231 2031 2631]. 271
- Lorenzen, A.** Die Einwanderung der Klaffmuschel (*Mya arenaria* L.) in unsere Meere. Prometheus, Berlin, **15**, 1903, (61-62). [2219 2231]. 272
- Loriol, [Perceval] de.** Etude sur les mollusques et brachiopodes de l'Oxfordien supérieur et moyen du Jura bernois accompagnée d'une notice stratigraphique par F(rédéric) Koby. Genève (W. Kündig et fils), 1901, (119, av. 7 pls.). 4to. [2227 *d*]. 273
- et Girardot, Abel. Etude sur les mollusques et brachiopodes de l'Oxfordien supérieur et moyen du Jura lédonien. Première partie. Basel, Abh. Schweiz. Pal. Ges., **29**, 1902, (76, av. 5 pls. et 2 figs.). [2227 *di* 2231]. 274
- Lowe, Herbert N.** Notes on the Mollusk fauna of San Nicholas island. [Cal.] Nautilus, Boston, Mass., **17**, 1903, (66-69). [2227 *gi*]. 275
- M'Intosh, W. C.** Notes from the Gatty Marine Laboratory, St. Andrews. No. XXIV. On the frequency of the occurrence of pearls in the mussel (*Mytilus edulis*), etc. *Ann. Mag. Nat. Hist.*, London, (Ser. 7), **11**, 1903, (549-551). [2219]. 276
- Madoulé, Aug.** Double observation sur le mode de distribution des mollusques terrestres, vivant soit en colonies, soit plus ou moins isolément. Elbeuf, *Bul. soc. étud. sci. nat.*, **21**, (1902), 1903, (46-49). [2231 2219]. 277
- Marquand, G. B. e. Tomlin, J. R. le B.**
- Marshall, J. T.** Additions to "British Conchology." Part VII. Torquay, 1903, (59). 8vo. [2203]. 278

**Martens**, [Eduard] von. Neue Meer-Conchylien aus den Sammlungen der deutschen Tiefsee-Expedition. (Abdr. aus: Berlin, SitzBer. Ges. natf. Freunde, Jg 1902, N. 9.) Frankfurt a. M., Nachrbl. D. malakozool. Ges., 35, 1903, (97-105). [2231]. 279

— Griechische Mollusken, gesammelt von Eberh. von Oertzen. Arch. Natg., Berlin, 69, Bd. 1, 1903, (372-374). [2227 dl 2231]. 280

— Ueber einige Schnecken der Cocosinsel. Berlin, SitzBer. Ges. natf. Freunde, 1902, (59-62). [2227 mb 2231]. 281

— Die geographische Verbreitung von *Pomatias septemspiralis* Raz (= *maculatus* Drap.). Berlin, SitzBer. Ges. natf. Freunde, 1902, (62-73). [2231 2227 d]. 282

— Die Meeres-Conchylien der Cocos-Insel. Berlin, SitzBer. Ges. natf. Freunde, 1902, (137-141, 253). [2227 mb 2231]. 283

— Eine für die Provinz Brandenburg neue Süßwasserschnecke. *Physa acula* Drap. Berlin, SitzBer. Ges. natf. Freunde, 1902, (166-168). [2227 dc]. 284

— Einige neue Arten von Meer-Conchylien aus den Sammlungen der deutschen Tiefsee-Expedition. Berlin, SitzBer. Ges. natf. Freunde, 1902, (237-244). [2231]. 285

— Süßwasser-Conchylien vom Südufer des Taad-Sees. Berlin, SitzBer. Ges. natf. Freunde, 1903, (5-10). [2227 fd 2231]. 286

— Die Verbreitung der Meer-Conchylien an den Küsten von West- und Süd-Afrika. Berlin, SitzBer. Ges. natf. Freunde, 1903, (188-193). [2227 fh]. 287

— Durchbohrte Schalen von Landschnecken. Berlin, SitzBer. Ges. natf. Freunde, 1903, (393-396). [2219]. 288

— Vorkommen der *Helix* (*Campylaea*) *presli* und *Pupa edentula* bei Reichenhall. Berlin, SitzBer. Ges. natf. Freunde, 1903, (396-399). [2227 dc]. 289

— Land- und Süßwasser-Conchylien von Ost-Borneo. Berlin, SitzBer. Ges. natf. Freunde, 1903, (416-428). [2227 eg 2231]. 290

— und Thiele, [Johannes]. Die beschalten Gastropoden der deut-

schen Tiefsee-Expedition 1898-1899. A. Systematisch-geographischer Teil v. von Martens. B. Anatomisch-systematische Untersuchungen einiger Gastropoden. Von Joh. Thiele. (Wissenschaftliche Ergebnisse der deutschen Tiefsee-Expedition. Bd 7, Lfg 1. Jena, 1903, (1-146, mit 5 Taf.; 147-180, mit 4 Taf.) [2231 2227]. 291

**Martini und Chemnitz.** Systematisches Conchylien-Cabinet. . . . neu hrsg. u. vervollständigt v. H. C. Küster, nach dessen Tode fortgesetzt von W. Kobelt. Lfg 464 = Bd 1, H. 166 (S. 989-1028, mit Taf.); Lfg 465 = Bd 6, H. 15 (S. 1-24, mit Taf.); Lfg 466 = Bd 1, H. 167 (S. 1029-1060, mit Taf.); Lfg 467. 468. — Bd 1, H. 168. 169 (S. 773-836, mit Taf.); Lfg 469 = Bd 1, H. 170 (S. 401-448, mit Taf.); Lfg 470 = Bd 1, H. 171 (S. 837-884, mit Taf.); Lfg 471 = Bd 6, H. 16 (S. 25-32, 81-104 + 2 Bl., 241-273, mit Taf.); Lfg 472 = Bd 1, H. 172 (S. 1-24, 885-900); Lfg 473 = Bd 1, H. 173 (S. 901-956, mit Taf.); Lfg 474 = Bd 6, H. 17 (S. 33-56, mit Taf.); Lfg 475 = Bd 1, H. 174, (2 Bl., S. 957-1051); Lfg 476 = Bd 1, H. 175 (S. 25-56, mit Taf.); Lfg 477 = Bd 1, H. 176 (1061-1092, mit Taf.); Lfg 478 = Bd 6, H. 18 (S. 57-80, mit Taf.); Lfg 479 = Bd 1, H. 177 (S. 1-32, mit Taf.); Lfg 480 = Bd 6, H. 19 (S. 81-104, mit Taf.); Lfg 481 = Bd 6, H. 20 (S. 1-32, mit Taf.); Lfg 482 = Bd 6, H. 21, (S. 33-64, mit Taf.); Lfg 483 = Bd 6, H. 178 (S. 57-88, mit Taf.); Lfg 484 = Bd 6, H. 22 (S. 65-96, mit Taf.); Lfg 485 = Bd 6, H. 179 (S. 89-120, mit Taf.). Nürnberg (Bauer & Raspe), 1901-1903. 30 cm. Die Lfg 9 M. Auch in Sectionen zu 27 M. [2203 2231]. 292

**Mazzei**, G. Ricerche intorno alla struttura delle larve libere dei Gastropodi opisthobranchi. Milano, Rend. Ist. lomb., (Ser. 2), 35, 1902, (715-732, con. fig.). [2215 2231]. 293

**Meisenheimer**, Johannes. Ueber ein neues Genus der gymnosomen Pteropoden aus dem Material der deutschen Tiefsee-Expedition (*Schizobranchium*). Zool. Anz., Leipzig, 26, 1903, (410-412). [2231]. 294

**Melville**, J. C. A revision of the *Columbellidae* of the Persian Gulf and North Arabian Sea, with description of

**C. calliope** n. sp. J. Malac., London, 10, 1903, (27-31, with fig.). [2227 el 2231]. 295

**Melville, J. C.** The Genera *Pseudoliriv* and *Macron*. J. Conch., Leeds, 10, 1903, (320-330). [2231]. 296

——— and **Ponsonby, J. H.** Descriptions of thirty-one terrestrial and fluviatile Mollusca from South Africa. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (595-609, pls. XXXI-XXXII). [2227 fg 2231]. 297

——— and **Standen, R.** Descriptions of sixty-eight new Gastropoda from the Persian Gulf, Gulf of Oman, and North Arabian Sea, dredged by Mr. F. W. Townsend, of the Indo-European Telegraph Service, 1901-1903. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (289-324, pls. XX-XXIII). [2227 el 2231]. 298

——— The genus *Scula* (Klein) Humphrey, as represented in the Persian Gulf, Gulf of Oman, and North Arabian Sea, with descriptions of new species. J. Conch., Leeds, 10, 1903, (340-351, pl. VII). [2227 el 2231]. 299

——— and **Sykes, E. R.** Description of *Marginella lateritia* n. sp., from the Andaman Islands. London, Proc. Malac. Soc., 5, 1903, (410, with fig.). [2227 ma 2231]. 300

**Mesnil, F. v. Laveran, A.**

**Moussier, Stanislas.** Sur une coquille nouvelle de Pierrefitte, près Etampes. Naturaliste, Paris, (sér. 2), 25, 1903, (55-56, av. fig.). [2231]. 301

**Moves, Friedrich.** Ueber die sog. wurmförmigen Samenfüden von *Paludina* und über ihre Entwicklung. Anat. Anz., Jena, 19, ErgH., 1901, (23-37). [2215 2231]. 302

——— Ueber die sog. wurmförmigen Samenfüden von *Paludina* und über ihre Entwicklung. Kiel, Mitt. Ver. schlesw.-holst. Aerzte, (N.F.), 10, 1901, (5-9, 36-39, 49-52). [2215 2231]. 303

**Mirabella, [R.].** Osservazioni sull' accrescimento degli oociti di *Helix aspersa*. Mon. zool. ital., Firenze, 13, 1902, (Supplemento), (58-59). [2215 2231]. 304

——— Ricerche sull' accrescimento di *Helix aspersa*. Palermo (tip. Verzi), 1902, (40). [2215 2231]. 305

**Möllerndorff, O[tto] von.** Neue Landschnecken von Niederländisch-Indien. Frankfurt a. M., NachrBl. D. malakozool. Ges., 35, 1903, (156). [2227 eg 2231]. 308

——— v. Kobelt, W.

**Mollisch, Hans.** Notiz über eine blaue Dintomee. Berlin, Ber. D. bot. Ges., 21, 1903, (23-26, mit 1 Taf.). [2231]. 307

**Molyneux, A. J. E.** Fossils in: The sedimentary deposits of Southern Rhodesia. London, Q. J. Geol. Soc., 59, 1903, (280-281). [2231]. 308

**Murdoch, R.** On the anatomy of *Paryphanta urnula* Pfr., with notes on *P. hochstetteri* Pfr. and *Rhytila greenwoodi* Gray. London, Proc. Malac. Soc., 5, 1903, (270-273, with fig.). [2207 2231]. 309

——— Anatomy of *Paryphanta busbyi* (Gray). Wellington, Trans. N. Zeal. Inst., 35, 1903, (258-262). [2207 2231]. 310

**Murie, J.** Report on the sea fisheries and fishing industries of the Thames estuary. I. Kent and Essex Sea Fisheries Committee. London, 1903, (250, with figs. 1 pl.). 8vo. [2203 5419 5427 de 6031]. 311

**Naegels.** *Helix pomatia* L. [Links- windung der Schale.] Frankfurt a. M., NachrBl. D. malakozool. Ges., 35, 1903, (24-27). [2231 2207]. 312

——— Einiges aus Vorderasien. Frankfurt a. M., NachrBl. D. malakozool. Ges., 35, 1903, (168-177). [2227 ei 2231]. 313

**Nekrassoff, A.** Untersuchungen über die Reifung und Befruchtung des Eies von *Cymbulia peronii*. Vorläufige Mitteilung. Anat. Anz., Jena, 24, 1903, (119-127). [2215 2231]. 314

**Newton, R. B.** Notes on some Jurassic shells from Borneo, including a new species of *Trigonia*. London, Proc. Malac. Soc., 5, 1903, (403-409, pl. XVI). [2227 eg 2231]. 315

**Nierstrass, H. F.** Neue Solenogastren. Zool. Jahrb., Jena, Abt. f. Anat., 18, 1903, (359-386, mit 2 Taf.). [2231 2207]. 316

——— Das Herz der Solenogastren. Amsterdam, Verh. K. Akad. Wet., 2e Sect., 10, No. 2, [1903], (52, mit 3 Taf.). [2207 2231]. 317

**Nordenakiöld**, Erland. Ueber die Trockenzeitanpassung eines *Ancylus* von Südamerika. Zool. Anz., Leipzig, **26**, 1903, (590-593). [2219 2231]. 318

**Nordmann**, V. A conglomeration of mollusk shells from the bottom of the sea at Læsø. (Danish) Kjöbenhavn, Medd. Geol., **9**, 1903, (37-44). [2231 2227 da]. 319

— The extension of the oyster in the sea around Denmark in the present and past. (Danish) Kjöbenhavn, Medd. Geol., **9**, 1903, (45-60). [2219 2231]. 320

**Oppenheim**, Paul. Ueber die Fossilien der Blättermergel von Theben. München, SitzBer. Ak. Wiss., math.-phys. Cl., **32**, (1902), 1903, (435-456, mit 1 Taf.). [0231 1027 fb 1031 2231]. 321

**Orcutt**, C. R. Shells of western lake and stream. The West American Scientist, San Diego, Cal., **12**, 1901, ([33]-40). [2227 gi]. 322

— West American Mollusca. The West American Scientist, San Diego, Cal., **12**, 1901, (67-68, 78-80, [105]-108). [2227 gi]. 323

**Ortmann**, Al[mold] E[dward]. *Illecebroseus* [Lesueur], the "Squid from Onondaga lake, N.Y." Science, New York, N.Y., (N. Ser.), **17**, 1903, (30-31). [2227 gg 2231]. 324

**Overton**, H. Some notes on the so-called appendix of *Helicella barbara* (L.). J. Malac., London, **10**, 1903, (126-128). [2207 2231]. 325

**Pace**, S. On the anatomy of the Prosobranch genus *Pontiothauma* E. A. Smith. J. Linn. Soc. Zool., London, **28**, 1903, (455-462, pl. XLII). [2207 2231]. 326

— Note on the genus *Pseudomycla* Pace. London, Proc. Malac. Soc., **5**, 1903, (267-269). [2231]. 327

— Critical notes on Hervier's monograph of the *Columbellidae* of New Caledonia with *C. hervieri* nom. nov. J. conchyliol., Paris, **50**, 1902, (412-422). [2231 2227 il]. 328

**Palfy**, Mór. Zwei neue *Inoceramus*-Riesen aus den oberen Kreide-Schichten der siebenbürgischen Landesteile. (Ungarisch) Földt. Közl., Budapest, **33**, 1903 (415-451, 489-495, Taf. XI-XII). [2227 dk 2231]. 329

**Pallary**, Paul. Exploits d'escargots. J. conchyliol., Paris, **50**, 1902, (387-388). [2219 2231]. 330

**Pannell**, J. Additional notes upon the land and freshwater Mollusca of Surrey. J. Conch., Leeds, **10**, 1903, (331-334). [2227 de]. 331

**Park**, J. Marine Mollusca of Totaranui Bay, Nelson. Wellington, Trans. N. Zeal. Inst., **35**, 1903, (299-304). [2231]. 332

**Patterson**, A. The Mollusca of the Great Yarmouth district. Zoologist, London, (Ser. 4), **7**, 1903, (182-188). [2227 de]. 333

**Paulcke**, W. Ueber die Kreideformation in Südamerika und ihre Beziehungen zu anderen Gebieten. Tl 1. (Beiträge zur Geologie und Palaeontologie von Südamerika. Unter Mitwirkung von Fachgenossen hrg. v. G. Steinmann, X.) N. Jahrb. Min., Stuttgart, Beilagebd. **17**, 1903, (252-312, mit 3 Taf.). [0231 1031 1027 h 2231]. 334

**Pearce**, S. S. The association of *Helix nemoralis* and *Helix hortensis*. J. Conch., Leeds, **10**, 1903, (300-301). [2219 2231]. 335

**Pearcey**, F. G. Notes on the marine deposits of the Firth of Forth, and their relation to its animal life. Glasgow, Trans. Nat. Hist. Soc., **6**, 1903, (217-251, with map). [0427 de 0827 de 2227 de 2627 de 5427 de 1827 de]. 336

**Perrier**, Edm. Remarques à propos de la communication de M. Raphaël Dubois, du 19 octobre 1903, "Sur les huîtres perlières vraies." Paris, C.-R. Acad. sci., **137**, 1903, (682). [2219 2231]. 337

— et Gravier, Ch[arles]. Sur les causes physiologiques qui ont déterminé la constitution du type mollusque. Paris, C.-R. Acad. sci., **136**, 1903, (727-731). [2223]. 338

**Petch**, T. Marine zoology at Filey. Naturalist, London, **1903**, (351). [1027 de 0627 de 1827 de 2027 de 2627 de 2227 de 5427 de 0827 de]. 339

— The Marine Fauna of the Humber District and the Holderness Coast. Hull, Trans. Sci. F. Nat. Cl., **3**, 1903, (27-41). [1027 de 2227 de 2627 de 1827 de 0827 de]. 340

**Feyrot.** Note sur quelques fossiles des faluns de la Touraine (Helvétien infér.) et des environs d'Orthez (Helvétien supér.). Feuilles jeunes natural., Paris, (ser. 4), **33**, 1903, (46-49, 53-56, 69-73, av. pl.). [2227 *df*]. 341

**Pilsbry, Henry Augustine.** New land Mollusca from Idaho [*Pristiloma idahoense* n. sp.]. Philadelphia, Pa., Proc. Acad. Nat. Sci., **54**, 1902, (593). [2227 *gi* 2231]. 342

— Mollusca of western Arkansas and adjacent states, with a revision of *Paravitrea*. Philadelphia, Pa., Proc. Acad. Nat. Sci., **55**, 1903, (193-214, with pl.). [2227 *gi* 2231]. 343

— Additions to the Japanese land snail fauna. No. 8 [nn. spp. in *Clausilia*]. Philadelphia, Pa., Proc. Acad. Nat. Sci., **55**, 1903, (315-319, with pl.). [2227 *ce* 2231]. 344

— A new Japanese *Pleurotomaria*. Philadelphia, Pa., Proc. Acad. Nat. Sci., **55**, 1903, (496). [2227 *ec* 2231]. 345

— New land shells of the Japanese Empire. Nautilus, Philadelphia, Pa., **16**, 1902, (21-22). [2227 *ec* 2231]. 346

— *Zonitoides arboreus* (Say) in Japan. Nautilus, Philadelphia, Pa., **16**, 1903, (119). [2227 *ec* 2231]. 347

— A new *Pleurotomaria*. [*P. hirasei* n. sp.]. Nautilus, Boston, Mass., **17**, 1903, (36). [2231]. 348

— Land shells of Curacao. Nautilus, Boston, Mass., **17**, 1903, (48). [2227 *hc* 2231]. 349

— The use of the generic name *Helicostyla*. Nautilus, Boston, Mass., **17**, 1903, (58). [2231]. 350

— Notes on Polyplacophora of the Conchylien Cabinet. [by S. Clessin]. Nautilus, Boston, Mass., **17**, 1903, (58-59). [2231]. 351

— Zweiter Beitrag zur Binnenconchylienfauna des Miocäns von Oppeln in Schlesien. [Von Prof. Dr. A. Andreæ]. Nautilus, Boston, Mass., **17**, 1903, (59-60). [2227 *dc* 2231]. 352

— A new Jamaican *Colobostylus*. Nautilus, Boston, Mass., **17**, 1903, (65-66). [2227 *hc* 2231]. 353

**Pilsbry, Henry Augustine.** New Japanese marine mollusks. Nautilus, Boston, Mass., **17**, 1903, (69-71). [2227 *ec* 2231]. 354

— The greatest American *Planorbis*. [*Planorbis magnificus* n. sp.]. Nautilus, Boston, Mass., **17**, 1903, (75-76). [2231]. 355

— A new *Guppya*. [*G. miamiensis* n. sp.]. from Florida. Nautilus, Boston, Mass., **17**, 1903, (77-78). [2227 *gh* 2231]. 356

— Shells of Douglas co., central Washington. Nautilus, Boston, Mass., **17**, 1903, (84). [2227 *gi*]. 357

— and **Hirase, Y.** New land shells of the Japanese empire. Nautilus, Philadelphia, Pa., **16**, 1903, (114-117). [2227 *ec* 2231]. 358

— Descriptions of new Japanese land shells. Nautilus, Philadelphia, Pa., **16**, 1903, (134-136); **17**, 1903, (31-32). [2227 *ec* 2231]. 359

— Notices of new Japanese land shells. Nautilus, Boston, Mass., **17**, 1903, (44-46). [2227 *ec* 2231]. 360

— Notices of new land shells of the Japanese empire. Nautilus, Boston, Mass., **17**, 1903, (52-55). [2227 *ec* 2231]. 361

— New land snails of the Japanese empire. Nautilus, Boston, Mass., **17**, 1903, (78-79). [2227 *ec* 2231]. 362

**Pearson, J. H. & Melville, J. C.**

**Preston, H. B.** Supposed new species of *Helicina* and *Bulimulus* from Costa Rica. J. Malac., London, **10**, 1903, (4, with figs.). [2227 *hb* 2231]. 363

— Descriptions of two supposed new species of *Cyathopoma*. London, Proc. Malac. Soc., **5**, 1903, (340, with figs.). [2231]. 364

**Pritchard, G. B. and Gatliff, J. H.** On some new species of Victorian Mollusca. Melbourne, Proc. R. Soc. Vict., **16**, (N. Ser.), 1903, (92-95, pl. XV). [2227 *ib* 2231]. 365

— Catalogue of the Marine Shells of Victoria, Pts. VI, VII. Melbourne, Proc. R. Soc. Vict., (N. Ser.), **15**, 1903, (176-223); **16**, 1903, (96-139). [2227 *if* 2231]. 366



**Prots, A.** Zur Binnenmolluskenfauna der Provinz Ostpreussen. Frankfurt a. M., NachrBl. D. malakozool. Ges., **35**, 1903, (1-6). [2227 de]. 367

**Ramanan, V. V.** On the respiratory and locomotory habits of *Ampullaria globosa* Swainson. J. Malac., London, **10**, 1903, (107-113). [2219 2231]. 368

**Rathbun, Eleanor P. r.** Bigelow, R[obert] P[ayne].

**Raymond, William J.** Writings of James G. Cooper, M.D., on conchology and palaeontology, with lists of species described by him. Nautilus, Boston, Mass., **17**, 1903, (6-12). [0010 0030 2203]. 369

——— A new Californian *Trivia* [*T. ritteri* n. sp.]. Nautilus, Boston, Mass., **17**, 1903, (85-86). [2227 gi 2231]. 370

**Reid, C.** The geology of the country near Chichester. Mem. Geol. Surv. Eng., London, **1903**, (Explanation of sheet 317), (IV + 52, with 14 text figs.). [1027 de 2227 de]. 371

**Reynell, A.** Note on the occurrence of *Planorbis marginatus* Drap. and *Limnaea pereger* (Müll.) in the Post-Pliocene of Bognor, Sussex. London, Proc. Malac. Soc., **5**, 1903, (344-345). [2227 de 2231]. 372

**Ridewood, W. G.** On the structure of the gills of the Lamellibranchia. London, Phil. Trans. R. Soc., **194B**, 1903, (147-284, with figs.). [2207 2231]. 373

**Rivers, J. J.** *Pandora* (Kennerlia) grandis Dall. Los Angeles, Bull., So. Cal. Acad. Sci., **1**, 1902, (69). [2231]. 374

**Röhm, Joh.** Ueber cretaceische und eocäne Versteinerungen aus Fergana. [In: K. Futterer, Durch Asien. Bd 3.] Berlin, 1903, (93-112, mit 1 Taf.). [2231]. 375

**Rolle, H.** Einige neue Binnenmollusken von den Molukken. Frankfurt a. M., NachrBl. D. malakozool. Ges., **35**, 1903, (23-24). [2227 eg 2231]. 376

——— Neue *Amphidromus*-Formen von den Molukken. Frankfurt a. M., NachrBl. D. malakozool. Ges., **35**, 1903, (156-157). [2231]. 377

**Rosen, O. Baron von.** Zur Kenntnis der Molluskenfauna der Stadt Charkow und ihrer nächsten Umgebungen. [Aus. d. Russ.] Frankfurt a. M., NachrBl. D. malakozool. Ges., **35**, 1903, (152-155). [2227 db]. 378

——— Neue Arten aus dem Kaukasus und Zentralasien. Frankfurt a. M., NachrBl. D. malakozool. Ges., **35**, 1903, (178-182). [2227 ca 2231]. 379

**Rossmässler, E. A.** Iconographie der Land- und Süsswasser-Mollusken mit vorzüglicher Berücksichtigung der europäischen noch nicht abgebildeten Arten. Fortges. v. W[ilhelm] Kobelt. N. F. Bd 9. Lfg 3.4. 5/6 [Schluss des Bandes]. Color. u. schwarze Ausg. Wiesbaden (C. W. Kreidel), 1901, 1902, (25-86, mit 20 Taf.). Die Lfg der color. Ausg. 8 M., der schwarz. Ausg. 4,60 M. Ib. Bd 10, Lfg 1. 2. (1-32, mit 10 Taf.). [2231]. 380

**Ruedemann, Rudolf.** Noetling on morphology of the pelecypods. [Fritz Noetling: Beiträge zur Morphologie der Pelecypoden.] Amer. Geol., Minneapolis, Minn., **31**, 1903, (34-40, with pl.). [2207 2231]. 381

——— Professor Jaekel's theses on the mode of existence of *Orthoceras* and other Cephalopoda [with annotations by John M. Clarke]. Amer. Geol., Minneapolis, Minn., **31**, 1903, (199-217). [2219 2231]. 382

——— v. Clarke, John M[ason].

**Ruotsalainen, A.** Einiges über *Limnaea stagnalis* L. (Finnisch) Luonnon Ystävä, Helsingfors, **1903**, 11-12, (272-274). [2219 2231]. 383

**Sardeson, Frederick W[illiam].** The phylogenic stage of the Cambrian Gastropoda. Chicago, Ill., J. Geol. Univ. Chic., **11**, 1903, (469-492, with 2 pls.). [2231]. 384

**Schellwien, E[rnst].** Palaeozoische und triadische Fossilien aus Ostasien. In: K. Futterer, Durch Asien, Bd 3. Berlin, 1903, (125-174, mit 5 Taf.). [0227 e 0431 2231]. 385

**Schepman, M[attheus] M[arinus].** Description of three new species of *Oliva* from the Siboga-expedition. Helder, Tijdschr. Ned. Dierk. Ver., (Ser. 2), **8**, [1903], (67-69). [2227 eg ia 2231]. 386

——— *Neritina subocellata* (Marts.) Schepm. Frankfurt a. M.,

NachrBl. D. malakozool. Ges., **35**, 1903, (20-22). [2231]. 387

**Schnabel**, H. Ueber die Embryonalentwicklung der Radula bei den Mollusken. II. Die Entwicklung der Radula bei den Gastropoden. Zs. wiss. Zool., Leipzig, **74**, 1903, (616-655, mit 3 Taf.). [2215]. 388

**Schweikart**, Alexander. Ueber die Bildung der Micropyle und des Chorions bei den Cephalopoden. Zool. Anz., Leipzig, **26**, 1903, (214-221). [2215 2231]. 389

**Sell**, Henrik. Beiträge zur Kenntniss der Molluskenfauna Dänemarks. Frankfurt a. M., NachrBl. D. malakozool. Ges., **35**, 1903, (105-113). [2227 da]. 390

**Shattuck**, George Burbank. The mollusca of the Buda limestone. [Texas]. [Dissertation (Ph.D.), Johns Hopkins university], with an appendix on the corals of the Buda limestone by Thomas Wayland Vaughan, Washington, D.C., Bull. Dept. Int., U. S. Geol. Surv., No. **205**, 1903, (9-40, with pl.). Separate, 22.8 cm. [2231 2227 gi]. 391

**Silantiev**, A. A. Die Schnecke *Nassa reticulata* L. als Feind des Fischfanges am kaukasischen Ufer des Schwarzen Meeres. (Russ.) Vest. rybopromysl., St. Petersburg, **1903**, 18, (445-446). [2219 2231]. 392

**Simroth**, H[einrich]. [Kritisches Referat über] Frandsen, P., Studies on the reactions of *Limax maximus* to direct stimuli. Zool. Centralbl., Leipzig, **10**, 1903, (269-275). [2211 2231]. 393

[Kritisches Referat über] Thiele, Joh. Die systemat. Stellung der Solenogastren u. die Phylogenie der Mollusken. Zool. Centralbl., Leipzig, **10**, 1903, (844-863). [2231]. 394

**Smith**, S. A. Note on some Mollusks of the family Bulimulidae from Matto Grosso. London, Proc. Zool. Soc., **1903**, 2, (70-71). [2227 hh 2231]. 395

Note on an abnormal specimen of *Argonauta argo*. London, Proc. Malac. Soc., **5**, 1903, (310, with fig.). [2223 2231]. 396

On *Xylophaga præstans* n. sp., from the English Coast. London, Proc. Malac. Soc., **5**, 1903, (328-330, with figs.). [2227 de 2231]. 397

A list of species of Mollusca from South Africa, forming an

appendix to G. B. Sowerby's 'Marine Shells of South Africa.' London, Proc. Malac. Soc., **5**, 1903, (354-402, pl. XV). [2227 fg 2203 2231]. 398

**Smith**, S. A. Land and fresh-water mollusca. Fauna of the Maldive and Laccadive Islands, **1**, (141-145). [2227 ma 2231]. 399

Marine Mollusca. In "Fauna and Geography of the Maldive and Laccadive Archipelagoes," II, (589-630, pls. XXXV-XXXVI). [2227 ma 2231]. 400

Description of a new species of *Gomphina* from New Zealand. J. Malac., London, **9**, 1902, [1903], (109-110, mit fig.). [2227 ia 2231]. 401

Descriptions of new species of land shells from Central Africa. J. Conch., Leeds, **10**, 1903, (315-319, pl. IV). [2227 ff 2231]. 402

Note on *Macron trochlea*. J. Conch., Leeds, **10**, 1903, (351). [2231]. 403

A new species of *Modiola* from Malacca. J. Conch., Leeds, **10**, 1903, (368, with fig.). [2227 eg 2231]. 404

Land and fresh-water shells. In 'Nat. Hist. Sokotra and Abdel-Kuri,' **1903**, (111-135, pls. XII-XIII), 8vo. [2227 ff 2231]. 405

**Smith**, James Perrin. The Carboniferous Ammonoids of America [with bibliography]. Washington, D.C., Dept. Int. U. S. Geol. Surv. Monogr., **42**, 1903, (211 + iii, with pl.). 30 cm. [2231 2227 g]. 406

**Sorby**, H. C. v. Garstang, W.

**Sowerby**, G. B. Descriptions of fourteen new species of marine Mollusca from Japan. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (496-501). [2227 ee 2231]. 408

Descriptions of new species of *Nassa*, *Purpura*, *Iatirus*, *Voluta*, *Conus*, *Stomatella*, and *Spondylus*. J. Malac., London, **10**, 1903, (73-77, pl. V). [2231]. 409

Mollusca of South Africa. Cape Town, Marin. Invest., **2**, 1903, (213-232, pls. III-V). [2227 fg 2231]. 410

and **Fulton**, H. C. Note on a specimen of *Fistulana clava*

Lamk. perforating a shell of *Mitra interlirata* Reeve. London, Proc. Malac. Soc., **5**, 1903, (345, pl. XVI). [2219 2231]. 410a

Stafford-Toronto, J. Die Clamfischerei in der Passamaquoddy-Bay. Berlin, Mitt. D. Seefischereiver., **18**, 1902, (457-461). [2231 2203]. 411

Standen, R. v. Melvill, J. C.

Stanton, Timothy W. A new freshwater Molluscan faunule from the Cretaceous of Montana. Philadelphia, Pa., Proc. Amer. Phil. Soc., **42**, 1903, (188-199, with 1 pl.). [2227 gi 2231]. 412

Stauffacher, Hch. Einiges über Zell- und Kernstrukturen. Zs. wiss. Zool., Leipzig, **73**, 1903, (368-376, mit 1 Taf.). [2207]. 413

Stearns, Robt. E. C. Mollusks occurring in Southern California. Nautilus, Philadelphia, Pa., **16**, 1903, (133-134). [2227 gi]. 414

Stebbing, W. P. D. Excursion to Salisbury and the Vale of Wardour . . . Old Sarum and Stonehenge. London, Proc. Geol. Ass., **18**, 1903, (146-149). [1027 de 2227 de]. 415

Sterkl, V[ictor]. Notes on the *Unionidae* and their classification. Amer. Nat., Boston, Mass., **37**, 1903, (103-113). [2223 2231]. 416

— New *Pisidia*. Nautilus, Boston, Mass., **17**, 1903, (20-22, 79-82). [2231]. 417

— New North American *Pisidia*. Nautilus, Boston, Mass., **17**, 1903, (42-43). [2227 gf 2231]. 418

Stiasny, Gustav. Die Niere der Weinbergschnecke. Zool. Anz., Leipzig, **26**, 1903, (334-344). [2207 2231]. 419

Streich, Hermann. Die Schnecken- zucht. Ausführliche Beschreibung der Weinbergschnecke . . . nebst Anhang: Die Schneckenküche. Heilbronn (O. Weber), [1903]. (V + 58) 18 cm. 0,75 M. [2203 2231]. 420

Sturany, R[udolf]. Ueber eine neue Höhlenschnecke. Wien. Verh. ZoolBot. Ges., **51**, 1901, (761-762). [2231]. 421

Sturm, Friedrich. Der Sandstein von Kieslingswalde in der Grafschaft Glatz und seine Fauna. Berlin, Jahrb. geol. Landesanst., **21**, 1901, Abh. auss. st. Pers., (39-98, mit 10 Taf.). [2231]. 422

Suter, H. On the systematic positions of *Patella kermacedensis* Pilsbry. J. Malac., London, **9**, 1902, [1903], (111, with pl.). [2231]. 423

— On a new genus and species of the family *Phenacoheliscidae*. J. Malac., London, **10**, 1903, (62-64, pl. IV). [2207 2231]. 424

Sykes, E. R. On the land operculate Mollusca collected during the "Skeat Expedition" to the Malay Peninsula in 1899-1900. London, Proc. Zool Soc., **1903**, 1, (194-199, pl. XX). [2227 eq 2231]. 425

— Note on monstrosity of *Rissoa parva* Da Costa. London, Proc. Malac. Soc., **5**, 1903, (260). [2223 2231]. 426

— Description of *Cerastus dinshawi* n. sp., from Aden, with a note on *Otopoma clausum* Shy. and *O. yemenicum* Brgt. London, Proc. Malac. Soc., **5**, 1903, (338-339, with figs.). [2227 ei 2231]. 427

— Notes on some British *Eulimidae*. London, Proc. Malac. Soc., **5**, 1903, (348-353, pl. XIV). [2227 de 2231]. 428

— Malacological Notes. 13. The value of the name *Rhodina* de Morgan. 14. Description of *Leptachatina henshawi*, n. sp. 15. On the name *Cataulus*. J. Malac., London, **10**, 1903, (1-3, with fig.). [2231]. 429

— Descriptions of new land shells from the Austro-Malayan Region. J. Malac., London, **10**, 1903, (64-67). [2227 ia 2231]. 430

— Notes on, with illustrations of, Austro-Malayan land shells. J. Malac., London, **10**, 1903, (78, pl. VI). [2227 eg 2231]. 431

— On the name *Lima elliptica*. J. Malac., London, **10**, 1903, (104). [2231]. 432

— On a small collection of marine shells from Surprise Island. J. Malac., London, **10**, 1903, (137-138). [2203 2227 it]. 433

— Digesta Malacologica. No. II. A summary of the Annals and Magazine of Natural History and its forerunners. Part I (1829-1863). London, 1903, (VIII + 76). 8vo. [2203]. 434

- Sykes, E. R.** On the Polyplacophora. In Herdman, Report . . . Pearl Oyster Fisheries of the Gulf of Manaar. Part I. Suppl. Rep. IV. London, 1903, (177-180, with pl.). 4to. [2231]. 435  
 — v. Melvill, J. C.
- Takehita, Takematsu.** Notes on *Pecten laqueatus*. (Japanese) Dobuts. Z., Tokyo, 15, 1903, (359-365). [2219 2231]. 436
- Teichmann, E.** Die frühe Entwicklung der Cephalopoden. Verh. D. zool. Ges., Leipzig, 13, 1903, (42-52). [2215 2231]. 437
- Tesch, J. J.** Vorläufige Mittheilung über Thecosomata und Gymnosomata der Siboga-Expedition. Helder, Tijdschr. Ned. Dierk. Ver., (Ser. 2), 8, [1903], (111-117). [2227 gg ia 2231]. 438
- Thesing, Curt.** Zur Kenntnis der Spermatogenese bei den Cephalopoden. Zool. Anz., Leipzig, 27, 1903, (1-7). [2215 2231]. 439
- Thiele, Johannes.** *Proneomenia ambonensis* n. sp. Jena, Denkschr. med. Ges., 8, 1903, (733-737, mit 1 Taf.). [2231]. 440  
 — v. Martens, Eduard von.
- Thompson, B.** The junction beds of the Upper Lias and Inferior Oolite in Northamptonshire. Pt. II: Stratigraphical and Palaeontological. Northampton, J. Nat. Hist. Soc., 11, 1903, (197-216, 235-244); 12, 1903, (54-69). [0427 de 2227 de]. 441
- Todd, R. A.** Notes on the invertebrate fauna and fish-food of the bays between the Start and Exmouth. Plymouth, J. Mar. Biol. Ass., 6, No. 4, 1903, (541-561). [5003 5027 de 2219 2227 de 2603 1827 de 1027 de 1019 0827 de 0819 0227 de 0060]. 442
- Tomlin, B.** A new Irish *Vertigo*. Irish Nat., Dublin, 12, 1903, (110). [2227 de 2231]. 443  
 — v. Chaster, G. W.
- Tomlin, J. R. le B.** *Vertigo heldi* in Ireland. J. Conch., Leeds, 10, 1903, (307-308). [2227 de 2231]. 444  
 — and Marquand, E. D. The land and freshwater shells of the Channel Islands. J. Conch., Leeds, 10, 1903, (285-294). [2227 df 2231]. 445
- Tornquist, A[lexander].** Die Dacnellen des deutschen Muschelkalkes. N. Jahrb. Min., Stuttgart, 1903, 2, (83-92, mit 1 Taf.). [2231]. 446
- Uchiyama, Ryūtarō.** Illustrated notes on Japanese molluscs. (Japanese) Dobuts. Z., Tokyo, 15, 1903, (9-12, with pl.). [2203 2227 ec]. 447
- Van Stone, J. H.** Note on the embryonic shell of *Planorbis*. London, Proc. Malac. Soc., 5, 1903, (344). [2215 2231]. 448
- Vayssières, A.** Sur les Hétéropodes recueillis pendant la campagne de l'*Hirondelle* et de la *Princesse-Alice*, faites sous la direction de S. A. le Prince de Monaco. Paris, C.-R. Acad. sci., 137, 1903, (346-348). [2231]. 449
- Vignal, L.** Sur les variétés du *Cerithium zebruni* Kiever. J. conchyliol., Paris, 51, 1903, (21-27, av. fig. et 1 pl.). [2223 2231]. 450
- Voinea, J.** Ueber die Entwicklung der Kiemen der Najaden. Diss. München (Druck v. M. Ernst), 1903, (45, mit 4 Taf.). 22 cm. [2215 2231]. 451
- Walker, Bryant.** Notes on Eastern American *Ancylus*. Nautilus, Boston, Mass., 17, 1903, (13-19, 25-31, with pl.). [2227 gg 2231]. 452  
 — v. Hale, D. J.
- Walker, P. F. v. Lamplugh, G. W.**
- Walther, Karl.** Das Unterdevon zwischen Marburg a. L. und Herborn (Nassau). N. Jahrb. Min., Stuttgart, Beilagebd., 17, 1903, (1-75, mit 4 Taf.). [0231 2031 2231]. 453
- Warren, S. H. v. Kennard, A. S.**
- Waterston, J.** Mollusca observed at Stromness, Orkney. Ann. Scot. Nat. Hist., Edinburgh, 1903, (52-53). [2227 de 2231]. 454
- Weeks, Wm. H., jun.** Shell collecting on Cliff island, Casco Bay, Maine. Nautilus, Boston, Mass., 16, 1902, (119-120). [2227 gg]. 455
- Welch, R.** The association of *Helix nemoralis* and *Helix hortensis*. J. Conch., Leeds, 10, 1903, (302-303). [2219 2231]. 456  
 — Pockets of land-shells Bannmouth Dunes, Portstewart. J. Conch., Leeds, 10, 1903, (238-239). [2227 de]. 457

**Weller, Stuart.** The Stokes collection of Antarctic fossils, Mollusca and Crustacea. Chicago, Ill. J. Geol. Univ. Chic., **11**, 1903, (413-419, with pl.). [2203 2603]. 458

**Wettstein, Ernst.** Zur Anatomie von *Cryptoplax larvaeformis* Burrow. Jenaische Zs. Natw., **38**, 1903, (473-504, mit 3 Taf.). [2231 2207]. 459

**Whitfield, R[obert] P[farr].** Notice of six new species of Unios from the Laramie group [Montana]. New York, N.Y., Bull. Amer. Mus. Nat. Hist., **19**, 1903, (483-487, with 3 pls.). Separate. 24.5 cm. [2227 gi 2231]. 460

**Willey, A.** Zoological results based on material from New Britain, New Guinea, Loyalty Islands and elsewhere, collected during the years 1895, 1896 and 1897 by Arthur Willey. Part VI. Cambridge, 1902. 4to. [Review] Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1902, (133-135). [0203 2203]. 461

**Williamson, Mrs. M. Burton.** A monograph on *Pecten aequisulcatus* Cpr. class Pelecypoda. Los Angeles, Bull., So. Cal. Acad. Sci., **1**, 1902, ([50]-61, with pl.). [2231]. 462

**Wittich, E.** Beitrag zur Kenntniss der alt-alluvialen Fauna im Mainthal. Frankfurt a. M., NachrBl. D. malakozool. Ges., **35**, 1903, (11-14). [2227 de]. 463

**Wohlberedt, Otto.** Nachtrag zur Molluskenfauna von Montenegro und Nord-Albanien. Frankfurt a. M., NachrBl. D. malakozool. Ges., **35**, 1903, (83-86). [2227 dl]. 464

Neue Fundorte für *Helix pomatia* L. Frankfurt a. M., NachrBl. D. malakozool. Ges., **35**, 1903, (86-88). [2231]. 465

**Wollemann, A.** Die Fauna des Senons von Bie-wende bei Wolfenbüttel. Berlin, Jahrb. geol. Landesanst., **21**, 1901, Abh. auss. St. Pers., (1-30). [0231 2231]. 466

**Woodcock, H. M.** Report, in Report of the Committee on investigations made at the Marine Biological Laboratory, Plymouth. London, Rep. Brit. Ass., **1902**, (271-272). [1019 0419 2219]. 467

**Woods, H.** A monograph of the cretaceous Lamellibranchia of England. Vol. I. London, Monogr. Palaeont. Soc., **1903**, (197-232, pls. XXXIX-XLII). 468

**Woodsworth, J. B.** On the sedentary impression of the animal whose trail is known as *Climactichnites*. [Suggestion of molluscan origin]. Albany Univ., N.Y., Bull. St. Mus., No. **69**, 1903, (959-966, with pl.). [0231 2231] 469

**Woodward, B. B.** Note on the nepionic shell of *Melo indicus* Gmel. London, Proc. Malac. Soc., **5**, 1903, (260). [2207 2231]. 470

————— Note on the dates of publication of J. E. Gray's "Catalogue of Pulmonata . . . in the . . . British Museum," Pt. i, 12mo, 1855; and of A. Moquin-Tandon's "Histoire Naturelle des Mollusques terrestres et fluviatiles de France," 2 vols., 1855, 8vo. London, Proc. Malac. Soc., **5**, 1903, (26). [2203]. 471

————— Note on the generic name *Buliminus*. London, Proc. Malac. Soc., **5**, 1903, (309-310). [2231]. 472

————— *Vitrea rogersi* n. sp., a British form hitherto misidentified with *Helix glabra* Studer, and *Hyalinia helvetica* Blum. J. Conch., Leeds, **10**, 1903, (309-311, pl. V). [2207 2231]. 473

————— List of British non-marine Mollusca. J. Conch., Leeds, **10**, 1903, (352-367). [2227 de]. 474

————— Mollusca. In the "Victoria History of the County of Cumberland," 1901, (99-100). [2227 de]. 475

————— Mollusca. In the "Victoria History of the County of Essex," **1**, (89-90). [2227 de]. 476

————— Mollusca. In the "Victoria History of the County of Hertford," **1**, 1902, (81-82). [2227 de]. 477

————— Mollusca. In the "Victoria History of the County of Norfolk," **1**, 1901, (87-88). [2227 de]. 478

————— Mollusca. In the "Victoria History of the County of Surrey," **1**, 1902, (71-72). [2227 de]. 479

————— Mollusca. In the "Victoria History of the County of Worscethshire," **1**, 1901, (81-82). [2227 de]. 480

————— and **Adams, L. E.** Mollusca. In the "Victoria History of the County of Northampton," **1**, 1902, (87-88). [2227 de]. 481

————— **r. Kennard, A. S.**

**Woodward, H. B.** Excursion to Royston, Hertfordshire, May 16th, 1903. London, Proc. Geol. Ass., **18**, 1903, (166-170). [1027 de 2227 de]. 482

**Wüst, Ewald.** Zur Ausbreitung der *Helix* (*Xerophila*) *obvia* Hartm. in Deutschland. Frankfurt a. M., NachrBl. D. malakozool. Ges., **35**, 1903, (185-186). [2231 2227 de]. 483

— Pleistozäne Flussablagerungen mit *Succinea schumacherii* Andr. in Thüringen und im nördlichen Harzvorlande. Zs. Natw., Stuttgart, **75**, (1902), 1903, (312-324, mit 1 Taf.). [2227 de 2231]. 484

**Yabe, Hisakatu.** Cretaceous Cephalopoda from the Hokkaidō. (Japanese) Tokyo, J. Coll., Sci. **18**, Art. 2, 1903, (1-55, with 7 pls.). [2227 de 2231]. 485

**Yung, Emile.** Le sens olfactif de l'escargot (*Helix pomatia*). Paris, C.-R. Acad. sci., **137**, 1903, (720-721). [2211 2231]. 486

— Sièges du sens olfactif chez les Gastéropodes pulmonés terrestres. Verh. Schweiz. Natf. Ges., Aarau, **85**, 1902, (78); Arch. Sci. Phys., Genève, (sér. 4), **14**, 1902, (535-537). [2211 2231]. 487

— La structure histologique de la grande corne de l'escargot. (*Helix pomatia*). Arch. Sci. Phys., Genève, (sér. 4), **16**, 1903, (754). [2207 2231]. 488

## 2203 COMPREHENSIVE AND GENERAL WORKS.

### GENERAL.

**Boettger, O[skar].** Ueber den wissenschaftlichen Wert der Schnecken- und Muschelschalen. Vortrag . . . Frankfurt a. M., Ber. Senckenb. Ges., **1903**, Tl 2, (177-186).

**Chaster, G. W.** Mollusca. In Brit. Assoc. Handbook to Southport, 1903, (146-154).

**Eliod, Morton John.** Montana shells. Nature study lesson. Missoula, Bull. Univ. Mont., No. **17**, Biol. Ser. No. **5**, 1903, (255-262, with pl.).

**Hamy, E. T.** Une rocaille [en *Strombus*] du vieux Marly. Bul. Muséum, Paris, **1903**, (55-56).

**Hescheler, Carl.** Der gemeine Tintenfisch (*Sepia officinalis* L.). Zürich, Neujahrb. Natf. Ges., **104**, 1902.

**Jacot, [E.].** Etude sur les mollusques. Messenger Suisse Rom., Fribourg, **16**, 1903, (132-133, 140-141, 173-174, 188).

**Johnson, J. P.** Notes on fossil and recent shells obtained on a visit to Cornwall. Geol. Mag., London, [4], **10**, 1903, (25-28).

**Marshall, J. T.** Additions to 'British Conchology.' Part VII. Torquay, 1903, (59). 8vo.

**Smith, E. A.** A list of species of Mollusca from South Africa, forming an appendix to G. B. Sowerby's "Marine Shells of South Africa." London, Proc. Malac. Soc., **5**, 1903, (354-402, pl. XV).

**Uchiyama, Ryūtārō.** . . . Molluscs of Japan. (Japanese) Dobuts. Z., Tokyo, **15**, 1903, (9-12, with pl.).

**Waterston, J.** Mollusca observed at Stromness, Orkney. Ann. Scot. Nat. Hist., Edinburgh, **1903**, (52-53).

**Willey, A.** Zoological results based on material from New Britain, New Guinea, Loyalty Islands, and elsewhere, collected during the years 1895, 1896, and 1897 by Arthur Willey. Part VI. Cambridge, 1902. 4to. [Review] Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1902, (133-135).

**Woodward, B. B.** Notes on the dates of publication of J. E. Gray's "Catalogue of Pulmonata . . . in the . . . British Museum," Pt 1, 12mo, 1855; and of A. Moquin-Tandon's "Histoire Naturelle des Mollusques terrestres et fluviatiles de France," 2 vols. 1855. 8vo. London, Proc. Malac. Soc., **5**, 1903, (261).

### TREATISES.

**Baker, Frank Collins.** Shells of land and water, a familiar introduction to the study of the mollusks. Chicago (A. W. Mumford), 1903, (xvii + 175, with illustr., 8 col. pls.). 28 cm.

### ECONOMICS.

**Barfuss, J.** Zur Vertilgung der Saatschnecken. Schweiz.-Bauer, Bern, **56**, 1902, No. 30, (5).

**Cort, Hugo de.** Ueber den Handelswerth und den Grad der augenblicklichen Seltenheit der *Pleurotomaria beyrichi*. Uebers. aus Bull. Soc. E. malacol. d. Belg. 2. III 01 . . . v. D. F. Heynemann. Frankfurt a. M., NachrBl. D. malakozool. Ges., **35**, 1903, (14-16).

**Dean, Bashford.** Japanese oyster-culture. Washington, D.C., Bull. U. S. Fish. Com., **22**, 1902, 1903, (13-37, with text fig. and pl.).

**Hale, David J. and others.** [C. A. Davis, Bryant Walker, B. B. Lathbury, A. C. Lane, Delos Pall, and Richard L. Humphrey.] Marl (bog lime) and its application to the manufacture of Portland cement. Michigan, Geol. Surv. Lansing, **8**, Part 3, 1903, (xi + 399, with 23 pls. and 43 figs.).

**Herdman, W. A.** Report to the Government of Ceylon on the Pearl Oyster Fisheries of the Gulf of Manaar. Part I. Pearl Oyster Report. London, 1903, (146). 4to.

— The Pearl Fisheries of Ceylon. Nature, London, **68**, 1903, (620-622).

**Holt, E. W. L.** The public oyster beds on the coasts of Counties Wicklow and Wexford. Rep. Fish. Ireland for 1901, Part II, (4-36).

— A Norwegian method of oyster culture (Translations of papers and reports in Norwegian). *l.c.* (77-103, with 10 pls.).

**Karpov, Vladimir.** Bericht über eine Reise an das Schwarze Meer zum Studium der Austernwirtschaft. (Russ.) Věst. rybopromyšl., St. Petersburg, **1903**, 18, (269-345).

**Stafford-Toronto, J.** Die Clamfischerei in der Passamaquoddy Bay. Berlin, Mitt. D. Seefischereiver, **18**, 1902, (457-461).

**Streich, Hermann.** Die Schnecken-zucht. Ausführliche Beschreibung der Weinbergsschnecke. . . . Nebst e. Anhang: Die Schneckenküche. Heilbronn (O. Weber), [1903] (V + 58). 18 cm. 0,75 M.

#### COLLECTIONS AND TECHNIQUE.

**Bolau, Hermann.** Ueber den Fang, die Präparation und die Aufbewahrung

einheimischer Mollusken. Naturfreund, Witten, **1**, 1902/3, (131, 147, 170-171, 185-186).

**Martini und Chemnitz.** Systematisches Conchylien-Cabinet . . . neu hrag. u. vervollständigt v. H. C. Küster, nach dessen Tode fortgesetzt von W. Kobelt, Lfg 464 = Bd 1, H. 166 (S. 989-1028, mit Taf.); Lfg 465 = Bd 6, H. 15 (S. 1-24, mit Taf.); Lfg 466 = Bd 1, H. 167 (S. 1929-1960, mit Taf.); Lfg 467. 468. = Bd 1, H. 168. 169 (S. 773-836, mit Taf.); Lfg 469 = Bd 1, H. 170 (S. 401-448, mit Taf.); Lfg 470 = Bd 1, H. 171 (S. 837-884, mit Taf.); Lfg 471 = Bd 6, H. 16 (S. 25-32, 81-104 + 2 Bl., 241-273, mit Taf.); Lfg 472 = Bd 1, H. 172 (S. 1-24, 885-900); Lfg 473 = Bd 1, H. 173 (S. 901-956, mit Taf.); Lfg 474 = Bd 6, H. 17 (S. 33-56, mit Taf.); Lfg 475 = Bd 1, H. 174, (2 Bl., S. 957-1051); Lfg 476 = Bd 1, H. 175 (S. 25-56, mit Taf.); Lfg 477 = Bd 1, H. 176 (1061-1092, mit Taf.); Lfg 478 = Bd 6, H. 18 (S. 57-80, mit Taf.); Lfg 479 = Bd 1, H. 177 (S. 1-32, mit Taf.); Lfg 480 = Bd 6, H. 19 (S. 81-104, mit Taf.); Lfg 481 = Bd 6, H. 20 (S. 1-32, mit Taf.); Lfg 482 = Bd 6, H. 21 (S. 33-64, mit Taf.); Lfg 483 = Bd 6, H. 178 (S. 57-88, mit Taf.); Lfg 484 = Bd 6, H. 22 (S. 65-96, mit Taf.); Lfg 485 = Bd 6, H. 179 (S. 89-120, mit Taf.). Nürnberg (Bauer & Raspe), 1901-1903. 30 cm. Die Lfg 9 M. Auch in Sectionen zu 27 M.

**Sykes, E. K.** On a small collection of marine shells from Surprise Island. J. Malac., London, **10**, 1903, (137-138).

**Weller, S.** The Stokes collection of Antarctic fossils. Chicago, Ill., J. Geol. Univ. Chic., **11**, 1903. (413-419, with pl.).

#### HISTORY, BIBLIOGRAPHY.

**Kobelt, W.** Otto Franz von Moellendorf. J. Malac., London, **10**, 1903, (122-125, pl. XI).

**Raymond, William J.** Writings of James G. Cooper, M.D., on conchology and palaeontology, with list of species described by him. Nautilus, Boston, Mass., **17**, 1903, (6-12).

**Sykes, E. R.** Digesta Malacologica. No. II. A summary of the Annals and Magazine of Natural History and its forerunners, Part I (1829-1863). London, 1903, (VIII + 76). 8vo.

## 2207 STRUCTURE.

## GENERAL.

**Bloomer, H. H.** The anatomy of certain species of *Ceratisolen* and *Solecurtus*. *J. Malac.*, London, **10**, 1903, (31-40, pl. II).

——— On the origin and function of the fourth aperture in some Pelecypoda. *l.c.* (43-45).

——— The anatomy of *Pharella orientalis* Dunker and *Tagelus rufus* Spengler. *l.c.* (114-121, pl. X).

**Cook, T. A.** Spirals in Nature and Art. London, 1903, (200, with figs.). 8vo.

**Davis, J. R. A.** and **Fleure, H. J.** L.M.B.C. Memoirs on typical British marine plants and animals. No. X. *Patella*, (the Common Limpet). London, 1903, (84, with 4 pls.).

**Digby, I.** Preliminary note on the anatomy of the genus *Cataulus*. London, *Proc. Malac. Soc.*, **5**, 1903, (261).

**Eliot, Sir C.** On some nudibranchs from East Africa and Zanzibar. London, *Proc. Zool. Soc.*, **1903**, **1**, (250-257), **2**, (354-385).

**Glamann, G.** Anatomisch-systematische Beiträge zur Kenntniss der Tracheopulmonaten. *Zool. Jahrb.*, Jena, Abt. f. Anat., **17**, 1903, (679-762, mit 6 Taf.).

**Godwin-Austen, H. H.** On the anatomy of two land Molluscs (*Helicarion* (?) *willeyana* and *H* (?) *woodwardi* n. sp.) from New Britain and Lifu, Loyalty Islands, collected by Dr. Arthur Willey, F.R.S., in 1895-97. London, *Proc. Malac. Soc.*, **5**, 1903, (296-299, pl. IX).

——— Further description of the animal of *Damayantia carinata* Collinge, showing its similarity to *D. smithi* Collinge and G.-A. with remarks on this genus of Issel, *Collingea* of Simroth and *Isselentia* of Collinge. *l.c.* (311-316, pl. XI).

——— Morphological observations on species belonging to the families *Cyclostomidae* and *Helicidae*. In the "Natural History of Sokotra and Abdel-Kuri," edited by H. O. Forbes, (159-174, pl. XIII A.).

**Griffin, Lawrence Edmonds.** The anatomy of *Nautilus pompilius*. [with (p 2-9053)

bibliography] . . . Dissertation . . . Ph. D. . . . Johns Hopkins Univ. (Reprinted from the Memoirs of the National academy of sciences.) Baltimore, Md. Mem. Biol. Lab., Johns Hopkins Univ., **5**, 1903, (1-230, with 17 pls.).

**Hoyle, W. E.** Notes on the type specimen of *Loligo eblanae* Ball. Manchester Mem. Lit. Phil. Soc., **47**, No. 9, 1903, (10, with 1 pl.); also issued as Notes Manchester Mus., No. 14.

**Keer, P. M.** Beitrag zur Kenntniss des Schiffsbohrwurmes. (Holländisch) Leiden (P. W. M. Trap), 1903, (58, mit 4 Taf.). 29 cm.

**Kostezen, H.** Leighton. Notes on Prosobranchiata. No. ii. Littorinacea. Sydney, N.S.W., *Proc. Linn. Soc. N. S. Wales*, **27**, (1902), 1903 (620-636, with 1 pl.).

**Lenzen, J.** Système nerveux, système circulaire, système respiratoire et système excréteur de la *Neritina fluviatilis* (fragments d'un travail monographique sur cette espèce). Louvain (A. Uystpruyt), Lierre (J. Van In et Cie), 1903; Cellule, Louvain, **20**, 1903, (287-333, pls. I-III).

**List, Theodor.** Die Mytiliden des Golfes von Neapel und der angrenzenden Meeres-Abschnitte. Tl. I. (Fauna und Flora des Golfes von Neapel. **27** Monographie [Jg 20.] Berlin, 1902, (X + 312, mit 22 Taf.). 33 cm. 120 M.

**Murdoch, R.** On the anatomy of *Paryphanta urnula* Pfr., with notes on *P. hochstetteri* Pfr. and *Rhytida greenwoodi* Gray. London, *Proc. Malac. Soc.*, **5**, 1903, (270-273, with fig.).

——— Anatomy of *Paryphanta busbyi* Gray. Wellington, Trans. N. Zeal. Inst., **35**, 1903, (258-262).

**Mierstrass, H. F.** Neue Solenogastren. *Zool. Jahrb.*, Jena, Abt. f. Anat., **18**, 1903, (359-386, mit 2 Taf.).

**Pace, S.** On the anatomy of the Prosobranch genus *Pontiothauma* E. A. Smith. London, *J. Linn. Soc., Zool.*, **28**, 1903, (455-462, pl. XLII).

**Ruedemann, Rudolf.** Noetling on the morphology of the Pelecypods. [Fritz Noetling: Beiträge zur Morphologie der Pelecypoden.] Amer. Geol., Minneapolis, **31**, 1903, (34-40, with pl.).



**Suter, H.** On a new genus and species of the family *Phenacohelcidae*. J. Malac., London, **10**, 1903, (62-64, pl. IV).

**Wettstein, Ernst.** Zur Anatomie von *Cryptoplax larcaformis* Burrow. Jenaische Zs. Natw., **38**, 1903, (473-504, mit 3 Taf.).

**Woodward, B. B.** *Vitrea rogersi* n. sp., a British form hitherto misidentified with *Helix glabra* Studer, and *Hyalimia helvetica* Blum. J. Conch., Leeds, **10**, 1903, (309-311, pl. VI).

#### COMPARATIVE ANATOMY.

**Hescheler, Carl.** *Sepia officinalis* L. Der gemeine Tintenfisch. Ein Beispiel der Untersuchung eines Tieres auf vergleichende anatomischer Grundlage. Zürich (Zürcher & Turrer), 1902, (IV + 40, mit 2 Taf. und 11 Fig.). 4to.

#### TEGUMENT AND ITS ORGANS.

**Glaser, O[tto] C.** The nematocysts of nudibranch molluscs. Baltimore, Md., Johns Hopkins Univ. Cir., **22**, 1903, (22-24).

**Stauffacher, Hch.** Einiges über Zell- und Kernstrukturen. I.c. **73**, (368-376, mit 1 Taf.).

**Yung, Emile.** La structure histologique de la grand corne de l'escargot (*Helix pomatia*). Arch. Sci., Phys., Genève, (sér. 4), **16**, 1903, (754).

#### NERVOUS SYSTEM AND ORGANS OF SENSE.

**Bochenek, Adam.** Contribution à l'étude du système nerveux des gastéropodes; anatomie fine des cellules nerveuses. Vol III. Névrase, 1901, (83-104).

**Chun, Carl.** Ueber Leuchtorgane und Augen von Tiefsee-Cephalopoden. Verh. D. zool. Ges., Leipzig, **13**, 1903, (67-91).

**Gravier, Ch.** Sur le système nerveux du Nautilus. Paris, C.-R. Acad. sci., **136**, 1903, (618-621, av. fig.).

**Hamlyn-Harris, Ronald.** Die Statocysten der Cephalopoden. Zool. Jahrb., Jena, Abt. f. Anat., **18**, 1903, (327-358, mit 5 Taf.).

**Hollerbach, Christoph.** Linse and Corpus epitheliale im Cephalopodenauge and ihre Entwicklung. Bern. Vet.-med. Diss. 1903-04, Oppenheim a. Rh. s. a., (40, 2 Taf.). 8vo.

**Latter, O. H.** The nervous system of *Anodonta cygnea*. Nature, London, **68**, 1903, (623).

#### SKELETAL STRUCTURE OF INVERTEBRATES.

**Naeglele, Helix pomatia L. [Linkswindung der Schale.] Frankfurt a. M., NachrBl. D. malakozool. Ges., **35**, 1903, (24-27).**

**Woodward, B. B.** Note on the nepionic shell of *Melo indicus* Gmel. London, Proc. Malac. Soc., **5**, 1903, (260).

#### ALIMENTARY SYSTEM.

**Enriques, Paolo.** Le foie des mollusques et ses fonctions. (Résumé). Arch. ital. biol., Torino, **37**, 1902, (177-199).

#### CIRCULATORY AND RESPIRATORY ORGANS.

**Nierstrass, H[ugo] F[rederik].** Das Herz der Solenogastren. Amsterdam, Verh. K. Akad. Wet., 2<sup>e</sup> Sect., **10**, No. 2, [1903], (52, mit 3 Taf.).

**Ridewood, W. G.** On the structure of the gills of the Lamellibranchia. London, Phil. Trans. R. Soc., **194 B**, 1903, (147-284, with figs.).

#### EXCRETORY ORGANS.

**Burns, R. H.** On the renal organs of *Nucula nucleus* Linn. London, Proc. Malac. Soc., **5**, 1903, (300-304, pl. X).

**Fähringer, Josef.** Ueber das Vorkommen einer Speicherniere bei *Carinaria mediterranea* Per. u. Les. Zool. Anz., Leipzig, **27**, 1903, (7-12).

**Stiasny, Gustav.** Die Niere der Weinbergsschnecke. I.c. **26**, (334-344).

#### SPECIAL GLANDS.

**Frierson, L. S.** Observations on the byssus of *Umnididae*. Nautilus, Boston, Mass., **17**, 1903, (76-77).

## REPRODUCTIVE ORGANS.

**Ancel**, P. Histogenèse et structure de la glande hermaphrodite d'*Helix pomatia* (Linn.). Arch. biol., Paris-Liège, **19**, 1903, (391-652, av. 7 pls.).

——— Sur les premières phases du développement de la glande génitale et du canal hermaphrodite chez *Helix pomatia*. (Note préliminaire.) Bibliogr. anat., Nancy, **10**, 1902, (160-162).

**Bergmann**, W[il]ly]. Ueber den Bau des Ovariums bei Cephalopoden und einige Nachträge zur Eibildung derselben. Arch. Natg., Berlin, **69**, Bd 1, 1903, (227-236, mit 1 Taf.).

——— Ein Receptaculum seminis bei *Octopus de filippii* und einige biologische Beobachtungen. Berlin, Sitz-Ber. Ges. natf. Freunde, **1903**, (104-109).

**Brayne**, C. de. Contribution à l'étude de la cellule folliculaire des glandes génitales des Gastéropodes. Bruxelles, Bul. Acad. roy., **1903**, (115-135).

**Overton**, H. Some notes on the so-called appendix of *Helicella barbara* (L.). J. Malac., London, **10**, 1903, (126-128).

## SPECIAL EXTERNAL CHARACTERS.

**Clarke**, John M[ason]. Torsion of the Lamellibranch shell. An illustration of Noetling's law. Albany, Univ., N.Y., Bull. St. Mus., No. **69**, 1903, (1228-1233).

## 2211 PHYSIOLOGY.

## NERVOUS SYSTEM AND SENSE ORGANS.

**Jenkins**, O[liver] P[eebles] and **Carlson**, A. J. The rate of nervous impulse in certain Molluscs. Amer. J. Physiol., Boston, Mass., **8**, 1903, (251-268).

**Yung**, Emile. Siège du sens olfactif chez les Gastéropodes pulmonés terrestres. Verb. Schweiz. Natf. Ges., Aarau, **85**, 1902, (78); Arch. Sci. Phys., Genève, (sér. 4), **14**, 1902, (535-537).

## FUNCTION OF SPECIAL ORGANS AND STRUCTURES.

**Bloomer**, H. H. On the origin and function of the fourth aperture in some (x 2-9053)

Pelecypoda. J. Malac., London, **10**, 1903, (43-45).

**Dubois**, Raphaël. Sur la formation de la pourpre de *Purpura lapillus*. Paris, C.-R. Acad. sci., **136**, 1903, (117-118).

——— Sur le venin de la glande à pourpre des *Murex*. Paris, C.-R. soc. biol., **55**, 1903, (81).

——— Sur la purpurase du *Purpura*; à propos d'une Note de M. A. Letellier. l.c. (82).

**Enriques**, P. Ricerche osmotiche sulla *Limnaea stagnalis*. Roma, Rend. Acc. Lincei, (Ser. 5), **11**, 1<sup>o</sup> Sem., 1902, (440-448).

——— Le foie des mollusques et ses fonctions (Résumé). Arch. ital. biol., Torino, **37**, 1902, (177-199).

**Gessard**, C. Sur les oxydases des seiches. Paris, C.-R. Acad. sci., **136**, 1903, (631-632).

**Heath**, Harold. The function of the *Chiton* subradular organ. Anat. Anz., Jena, **23**, 1903, (92-95).

**Künkel**, Karl. Zur Locomotion unserer Nachtschnecken. Zool. Anz., Leipzig, **26**, 1903, (560-566).

**Yung**, Emile. Le sens olfactif de l'Escargot (*Helix pomatia*). Paris, C.-R. Acad. sci., **137**, 1903, (720-721).

## ENVIRONMENTAL EFFECTS.

**Billups**, A. C. Adaptation of Mollusks to changed conditions. Nautilus, Philadelphia, Pa., **16**, 1903, (112-114).

**Simroth**, H[einrich]. [Kritisches Referat über] Frandsen, P., Studies on the reactions of *Limax maximus* to direct stimuli. Zool. Centralbl., Leipzig, **10**, 1903, (269-275).

## 2215 DEVELOPMENT.

## GENERAL.

**Drummond**, J. M. Development of *Paludina vivipara*, with special reference to the urinogenital organs and theories of gastropod torsion. Q. J. Microsc. Sci., London, (Ser. 2), **46**, 1903, (97-143, with 3 pls.).

## OOGENESIS AND OVUM.

**Bergmann, W[il]ly.** Ueber den Bau des Ovariums bei Cephalopoden und einige Nachträge zur Eibildung derselben. Arch. Natg., Berlin, **69**, Bd 1, 1903, (227-236, mit 1 Taf.).

**Mirabella, [R.].** Osservazioni sull'accrescimento degli oociti di *Helix aspersa*. Mon. zool. ital., Firenze, **13**, 1902, (Supplemento), (58-59).

**Nekrassoff, A.** Untersuchungen über die Reifung und Befruchtung des Eies von *Cymbulia peronii*. Vorläufige Mitteilung. Anat. Anz., Jena, **24**, 1903, (119-127).

**Schweikart, Alexander.** Ueber die Bildung der Micropyle und des Chorions bei den Cephalopoden. Zool. Anz., Leipzig, **26**, 1903, (214-221).

## SPERMATOGENESIS.

**Ancel, P.** La réduction numérique des chromosomes dans la spermatogenèse d'*Helix pomatia*. Bibliogr. anat., Nancy, **11**, 1902, (145-148).

——— Sur le Nebenkern des spermatocytes d'*Helix pomatia*. l.c. (234-240).

**Moves, Friedrich.** Ueber die sog. wurmförmigen Samenfäden von *Paludina* und über ihre Entwicklung. Anat. Anz., Jena, **19**, ErgH., 1901, (23-27); Kiel, Mitt. Ver. schlesw.-holst. Aerzte, (N.F.), **10**, 1901, (5-9, 36-39, 49-52).

**Thesing, Curt.** Zur Kenntnis der Spermatogenese bei den Cephalopoden. Zool. Anz., Leipzig, **27**, 1903, (1-7).

## FERTILIZATION.

**Chadwick, W. H.** Self-fecundation in *Planorbis vortex*. J. Conch., Leeds, **10**, 1903, (265).

**Conklin, Edwin G[rant].** Centrosome and sphere in the maturation, fertilization and cleavage of *Crepidula*. [Reprint]. Philadelphia, Cont. Zool. Lab., Univ. Pa., **1901**, 1902, ([280]-287, with text fig.).

**Nekrassoff, A.** Untersuchungen über die Reifung und Befruchtung des Eies von

*Cymbulia peronii*. Vorläufige Mitteilung. Anat. Anz., Jena, **24**, 1903, (119-127).

## EMBRYOLOGY.

**Conklin, Edwin G[rant].** The individuality of the germ nuclei during the cleavage of the egg of *Crepidula*. [With bibliography]. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **2**, 1901, (257-265, with text fig.); [reprint], Philadelphia, Cont. Zool. Lab., Univ. Pa., **1901**, 1902, (257-265, with text-fig.).

**Kesteven, H. Leighton.** The neanic shell of *Melo diadema* Lamk., and the definition of the Nepionic stage in the Gastropod Mollusc. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, **28**, 1903, (443-452).

**Schnabel, H.** Ueber die Embryonalentwicklung der Radula bei den Mollusken. II. Die Entwicklung der Radula bei den Gastropoden. Zs. wiss. Zool., Leipzig, **74**, 1903, (616-655, mit 3 Taf.).

**Teichmann, E.** Die frühe Entwicklung der Cephalopoden. Verh. D. zool. Ges., Leipzig, **13**, 1903, (42-52).

**Van Stone, T. H.** Note on the embryonic shell of *Planorbis*. London, Proc. Malac. Soc., **5**, 1903, (344).

## EXPERIMENTAL EMBRYOLOGY.

**Loeb, Jacques.** Artificial parthenogenesis in molluscs. Berkeley, Univ. Cal. Pub., Physiol., **1**, 1903, (7-9). Separate. 26.5 cm.

## METAMORPHOSIS AND LARVAL FORMS.

**Faussek, V.** Parasitismus der *Anodonta*-Larven (Russ.) St. Petersburg, Mém. Ac. Sc., (8F.), **13**, No. 6, 1903, (132, mit deutscher Tafelerklär. 133-141, mit 8 Taf.).

## POSTEMBRYONIC ONTOGENY.

**Ancel, P.** Sur les premières phases du développement de la glande génitale et du canal hermaphrodite chez *Helix pomatia*. (Note préliminaire.) Bibliogr. anat., Nancy, **10**, 1902, (160-162).

——— Sur les premières différenciations cellulaires dans la glande hermaphrodite d'*Helix pomatia*. l.c. (17-20).

**Ancel, P.** Histogénèse et structure de la glande hermaphrodite d'*Helix pomatia* (Linn.) Arch. biol., Paris-Liège, **19**, 1903, (391-652, av. 7 pls.).

**Massarelli, G.** Ricerche intorno alla struttura delle larve libere dei Gastropodi opisthobranchi. Milano, Rend. Ist. lomb., (Ser. 2), **35**, 1902, (715-732, con fig.).

**Mirabella, R.** Ricerche sull' accrescimento di *Helix aspersa*. Palermo (tip. Verzi), 1902, (40).

**Voinea, J.** Ueber die Entwicklung der Kiemen der Najaden. Diss. München (Druck v. M. Ernst), 1903, (45, mit 4 Taf.), 22 cm.

## 2219 ETHOLOGY.

### GENERAL.

**Blackburn, E. P.** Dispersal of shells by beetles. Hull, Trans. Sci. F. Nat. Cl., **3**, 1903, (101).

**Boutan, Louis.** L'origine réelle des perles fines. Paris, C.-R. Acad. sci., **137**, 1903, (1073-1075).

**Brockmeier, Heinr.** Wie gewinnen unsere Landschnecken den Kalk für ihre Gehäuse? Naturfreund, Witten, **1**, 1903, (174-176, 182-184).

**Clapp, Geo. H.** Exotic Mollusca in the Phipps Conservatory, Schenley Park, Pittsburgh. Pittsburgh, Pa., Ann. Carnegie Mus., **1**, 1901, (252).

**Dubois, Raphaël.** L'origine des perles chez le *Mytilus gallo-provincialis*. Paris, C.-R. Acad. sci., **136**, 1903, (178-179).

**Faussek, V.** Parasitismus der Anodonta-Larven. (Russ.) St. Petersburg, Mém. Ac. Sc., (8 F.), **13**, N. 6, 1903, (132, mit dtsch. Tafelerklär. 133-141, mit 8 Taf.).

**Forel, F[rançois] A[lphonse].** Mouette et anodonte. Lausanne, Bul. Soc. Sci. Nat., **38**, 1902, (XXI); Arch. Sci. Phys., Genève, (sér. 4), **13**, 1902, (605).

**Pallary, Paul.** Exploits d'escargots. J. conchyliol., Paris, **50**, 1902, (387-388).

**Ruedemann, Rudolf.** Professor Jaekel's theses on the mode of existence of *Orthoceras* and other Cephalopods. [With annotations by John M. Clarke.] Amer. Geol., Minneapolis, Minn., **31**, 1903, (199-217).

**Ruotsalainen, A.** [Einiges über *Limnaea stagnalis*. L.] (Finnisch) Luonnon Ystävä, Helsingfors, **1903**, 11-12, (272-274).

**Woodcock, H. M.** Report, in Report of the Committee on investigations made at the Marine Biological Laboratory, Plymouth. London, Rep. Brit. Ass., **1902**, (271-272).

### HABITS.

**Brüning.** *Hydra* und *Limnaea* im Aquarium. Natur u. Haus, Dresden, **11**, 1903, (135-138).

**Collinge, W. E.** Notes on slugs and slug-like Molluscs. 1. On the *Limax umbrinus* of Philippi. 2. On a species of *Arion* from New Zealand. 3. On the dispersal of *Microparmarion* sp. 4. Variation in the footfringe of *Arion empiricorum*. J. Malac., London, **10**, 1903, (17-19).

**Cretté de Palluel, Albert.** Ennemis peu connus des oiseaux d'eau. Ornith., Paris, **12**, 1902-1903, (118).

**Giard.** Curieuse station de *Theodoxia fluviatilis* L. Feuille jeunes natural., Paris, (sér. 4), **38**, 1903, (223).

**Hamilton, S. H.** Habits of *Acanthopleura granulata* [showing development of megalapores]. Nautilus, Philadelphia, Pa., **16**, 1903, (138).

**Karpov, Vladimir.** Bericht über eine Reise an das Schwarze Meer zum Studium der Austernwirtschaft. (Russ.) Věst. rybopromysl., St. Peterburg, **1903**, 18, (269-345).

**Kellogg, James L.** Feeding habits and growth of *Venus mercenaria*. Albany Univ., N.Y., Bull. St. Mus., No **71**, 1903, (27, with pl.). 23 cm.

**Kew, H. W.** Snails and spiders on towers. Naturalist, London, **1903**, (342-343).

**Künkel, Karl.** Zur Locomotion unserer Nachtschnecken. Zool. Anz., Leipzig, **26**, 1903, (560-566).

**Pearce, S. S.** The association of *Helix nemoralis* and *Helix hortensis*. J. Conch., Leeds, **10**, 1903, (300-301).

**Ramanan, V. V.** On the respiratory and locomotory habits of *Ampullaria globosa* Swainson. J. Malac., London, **10**, 1903, (107-113).

**Takeshita, T.** Notes on the habits of *Pecten laqueatus*. (Japanese) Dobuts. Z., Tokyo, 15, 1903, (359-365).

**Todd, R. A.** Notes on the invertebrate fauna and fish-food of the bays between the Start and Exmouth. Plymouth, J. Mar. Biol. Ass., 6, 1903, (541-561).

**Welch, R.** The association of *Helix nemoralis* and *Helix hortensis*. Conch., Leeds, 10, 1903, (302-303).

#### MIGRATION.

**Lorensen, A.** Die Einwanderung der Klaffmuschel (*Mya arenaria* L.) in unsere Meere. Prometheus Berlin, 15, 1903, (61-62).

#### PARENTAL RELATIONS.

**Ghigi, [Alessandro].** Il nidamento della *Tiedemannia neapolitana*. Mon. zool. ital., Firenze, 13, 1902, (Supplemento), (24-27, con 2 figg.).

#### SEXUAL RELATIONS.

**Bergmann, W.** Ein Receptaculum seminis bei *Octopus de filippii* und einige biologische Beobachtungen. Berlin, SitzBer. Ges. natf. Freunde, 1903, (104-109).

#### OVIPOSITION.

**Clapp, Geo. H.** *Vitrina* depositing eggs. Nautilus, Boston, Mass., 17, 1903, (91).

#### LUMINOSITY.

**Grun, Carl.** Ueber Leuchtorgane und Augen von Tiefsee-Cephalopoden. Verh. D. zool. Ges., Leipzig, 13, 1903, (67-91).

#### HABITAT.

**Andrusov, N.** Studien über die Brackwassercardiden. Lieferung I. St. Petersburg, Mém. Ac. Sc. (8 F.), 13, No. 3, 1903, (82, mit 2 Fig. und 7 Taf.).

**Osiot.** Liste des mollusques aquatiques vivant dans la Fontaine, à Nîmes. Nîmes, Bul. soc. étud. sci. nat., (n. sér.), 29, 1901, [1902], (14-19).

**Kennard, A. S. and Woodward, B. B.** Note on the occurrence of fresh-water Mollusca in a water-main at Poplar. Stratford, Essex Nat., 13, 1903, (80-81).

**Krogh, A.** On shells floating on the surface of the sea. London, Proc. Malac. Soc., 5, 1903, (341-342).

**Locard, Arnould.** Description de mollusques nouveaux appartenant à la faune souterraine de France et d'Italie. Bul. Museum, Paris, 1903, (608-611, av. fig.).

**Madoulé, Aug.** Double observation sur le mode de distribution des mollusques terrestres, vivant soit en colonies, soit plus ou moins isolément. Elbeuf, Bul. soc. étud. sci. nat., 21, (1902), 1903, (46-49).

**Nordmann, V.** The spreading of the oyster in the sea around Denmark in the present and the past. (Danish) Kjöbenhavn, Medd. Geol., 9, 1903, (45-60).

#### SYMBIOSIS.

**Issel, Raffaele.** Ancistridi del Golfo di Napoli. Studio monografico sopra una nuova famiglia di Cigliati, commensali di molluschi marini. Mitt. zool. Stat. Neapel, Berlin, 16, 1903, (63-108, mit 3 Taf.).

#### PARASITISM.

**Conte, A. et Bonnet, A.** Sur un nématode nouveau (*Angiostoma helicis* n. sp.), parasite de l'appareil génital d'*Helix aspersa* Muell. Paris, C.-R. soc. biol., 55, 1903, (198-199).

**Günther, R. T.** [The relation of the *Menestra* to the *Phyllirhoë*]. Mitt. zool. Stat. Neapel, Berlin, 16, 1903, (35-62, 280).

**Koehler, R. et Vaney, C.** *Entosiphon deimalis*, nouveau mollusque parasite d'une Holothurie abyssale. Rev. Suisse Zool., Genève, 11, 1903, (23-41, 1 pl.).

**Léger, Louis.** Sporozoaire parasite des moules et autres lamellibranches comestibles. Paris, C.-R. Acad. sci., 137, 1903, (1003-1005).

#### DEFENSIVE PROCESSES.

**Nordenskiöld, Erland.** Ueber Trockenzeitanpassung eines *Ancylus* von Südamerika. Zool. Anz., Leipzig, 26, 1903, (590-593).

## ENEMIES.

**Martens**, [Eduard] von. Durchbohrte Schalen von Landschnecken. Berlin, SitzBer. Ges. natf. Freunde, **1903**, (393-396).

**Sowerby**, G. B. and **Fulton**, H. C. Note on a specimen of *Fistulana clava* Lamk., perforating a shell of *Mitra interlirata* Reeve. London, Proc. Malac. Soc., **5**, 1903, (345, pl. XVI).

## UTILITY AND HARMFULNESS.

**Dubois**, Raphaël. Sur l'acclimatation et la culture des Pinctadines ou huîtres perlières vraies, sur les côtes de France et sur la production forcée des perles fines. Paris, C.-R. Acad. sci., **137**, 1903, (611-613).

**Herdman**, W. A. The pearl-oyster parasite in Ceylon. Nature, London, **69**, 1903, (126-127).

Report to the Government of Ceylon on the Pearl Oyster Fisheries of the Gulf of Manaar. Part I. Pearl Oyster Report. London, 1903, (146). 4to.

**M'Intosh**, W. C. Notes from the Gatty Marine Laboratory, St. Andrews. No. XXIV. On the frequency of the occurrence of pearls in the mussel (*Mytilus edulis*), etc. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (549-551).

**Perrier**, Edm. Remarques à propos de la communication de M. Raphaël Dubois, du 19 octobre 1903. "Sur les huîtres perlières vraies." Paris, C.-R. Acad. sci., **137**, 1903, (682).

**Stilantiev**, A. A. Die Schnecke *Nassa reticulata* L. als Feind des Fischfanges am kaukasischen Ufer des Schwarzen Meeres. (Russ.) Věst. rybopromysl., St. Peterburg, **1903**, **18**, (445-446).

## 2223 VARIATION AND AETIOLOGY.

## GENERAL.

**Bigelow**, R[obert] F[ayne] and **Bath-bun**, Eleanor P. On the shell of *Littorina littorea* as material for the study of variation. [With bibliography.]

Amer. Nat., Boston, Mass., **37**, 1903, (171-184).

**Bloomer**, H. H. On the origin and function of the fourth aperture in some Pelecypoda. J. Malac., London, **10**, 1903, (43-45).

**Cockerell**, T[heodore] D[ru] A[lison]. Variations in the snail-genus *Ashmuncella*. Philadelphia, Pa., Proc. Acad. Nat. Sci., **55**, 1903, (615-616).

**Collinge**, W. E. Notes on slugs and slug-like Molluscs. 1. On the *Limax umbrosus* of Philippi. 2. On a species of *Arion* from New Zealand. 3. On the dispersal of *Microparmarion*, sp. 4. Foot fringe of *Arion empiricorum*. J. Malac., London, **10**, 1903, (17-12).

**Geret**, P. Variété nouvelle de *Cypraca* provenant de la Nouvelle-Calédonie. J. conchyliol., Paris, **51**, 1903, (28).

**Grabau**, Amadeus W. Studies of Gastropoda. 2. *Fulgur* and *Sycotypus*. Amer. Nat., Boston, Mass., **37**, 1903, (515-539).

**Perrier**, Edmond et **Gravier**, Ch[arles]. Sur les causes physiologiques qui ont déterminé la constitution du type mollusque. Paris, C.-R. Acad. sci., **136**, 1903, (727-731).

**Sterki**, V. Notes on the *Unionidae* and their classification. Amer. Nat., Boston, Mass., **37**, 1903, (103-113).

**Vignals**, L. Sur les variétés du *Cerithium zebruni* Kieffer. J. conchyliol., Paris, **51**, 1903, (21-27, av. fig. et 1 pl.).

## SUBSTANTIVE VARIATION.

**Dimon**, A. C. Quantitative study of the effect of environment upon the forms of *Nassa obsoleta* and *N. trivittata* from Cold Spring Harbour, Long Island. Biometrika, Cambridge, **2**, 1903, (23-43).

**Kew**, H. W. Note on a two-banded shell of *Helicigona arbustorum* from Wensleydale. Naturalist, London, **1903**, (341-342, with fig.).

## MERISTIC VARIATION.

**Baker**, Frank Collina. Rib variation in *Cardium*. Amer. Nat., Boston, Mass., **37**, 1903, (481-488).

## TERATOLOGICAL VARIATION.

**Bloomer, H. H.** Note on a malformed specimen of *Ceratisolen legumen*. J. Malac., London, **10**, 1903, (104).

**Smith, E. A.** Note on an abnormal specimen of *Argonauta argo*. London, Proc. Malac. Soc., **5**, 1903, (310, with fig.).

**Sykes, E. R.** Note on a monstrosity of *Rissca parca* Da Costa. *Ic.* (260).

## HEREDITY.

**Künkel, Karl.** Zuchtversuche mit linksgewundenen Weinbergsschnecken (*Helix pomatia*). Zool. Anz., Leipzig, **26**, 1903, (656-664).

## EVOLUTION.

**Davenport, Charles Benedict.** Quantitative studies in the evolution of *Pecten*. III. Comparison of *Pecten opercularis* from three different localities of the British isles. Boston, Mass., Proc. Amer. Acad. Arts Sci., **39**, 1903, (121-159). Separate. 243 cm.

**Lameere.** Discours du président sur l'évolution des mollusques. Bruxelles, Bul. soc. roy. malac., **38**, 1903, (XXX-XLVI).

## 2227 GEOGRAPHICAL DISTRIBUTION.

## c OCEAN AS A WHOLE.

**Martens, [Eduard] von und Thiele, [Johannes].** Die beschalteten Gastropoden der deutschen Tiefsee-Expedition 1898-1899. A. Systematisch-geographischer Teil v. von Martens. B. Anatomisch-systematische Untersuchungen einiger Gastropoden. Von Joh. Thiele. (Wissenschaftliche Ergebnisse der deutschen Tiefsee-Expedition. Bd 7, 1. fig 1. Jena, 1903, (1-146, mit 5 Taf.; 117-180, mit 4 Taf.).

## d EUROPE.

**Kobelt, W[ilhelm].** Unsere Kenntniss der Fauna europaea. Frankfurt a. M., NachrBl. D. malakozool. Ges., **35**, 1903, (113-121).

**Locard, Arnould.** Notices conchyliologiques, LVII. Les Pteropodes testacés des mers d'Europe. Echange, Lyon, **1902**, (67-68, 74-75).

**Martens, [Eduard] von.** Die geographische Verbreitung von *Pomatias septemspiralis* Raz (*maculatus* Drap.). Berlin, SitzBer. Ges. natf. Freunde, **1902**, (62-73).

## da SCANDINAVIA.

**Johansen, A. C.** Remarks on the molluscan fauna (in the marine diluvium near Hostrup in Salling). (Danish) Kjöbenhavn, Nath. Medd., **1903**, (124-131).

**Nordmann, V.** A conglomeration of mollusk shells from the bottom of the sea at Læsø. (Danish) Kjöbenhavn, Medd. Geol., **9**, 1903, (37-41).

**Sell, Henrik.** Beiträge zur Kenntniss der Molluskenfauna Dänemarks. Frankfurt a. M., NachrBl. D. malakozool. Ges., **35**, 1903, (105-113).

## db RUSSIA IN EUROPE.

**Dybowski, W.** Fauna der Binnenmollusken Littauens. I. Familia *Cycladidae* Clessin. Frankfurt a. M., NachrBl. D. malakozool. Ges., **35**, 1903, (76-83).

**Rosen, O. Baron von.** Zur Kenntnis der Molluskenfauna der Stadt Charkow und ihrer nächsten Umgebungen. [Aus d. Russ.] *Ic.* (152-155).

## de GERMAN EMPIRE.

**Boettger, O.** Ueber die tertiären Landschnecken aus der Gattung *Vallonia* im Mainzer Becken und über einen neuen Landschnecken-Fundpunkt im Untergrunde von Frankfurt a. M. Frankfurt a. M., NachrBl. D. malakozool. Ges., **35**, 1903, (72-76).

**Geyer.** Malakologische Streifzüge in Württemberg. Stuttgart, Jahreshfte Ver. Natk., **59**, 1903, (315-324).

**Janensch, W.** Die Jurensisschichten des Elsass. Diss. Strassburg i. E. (Strassb. Druckerei u. Verlagsanst.), 1902, (153, mit 12 Taf.). 26 cm. [= Abh. geol. Spezialkarto Els.-Lothr., (N.F.), H. 5.]

**Martens**, [Eduard] von. Eine für die Provinz Brandenburg neue Süßwasserschnecke. *Physa acuta* Drap. Berlin, SitzBer. Ges. natf. Freunde, **1902**, (166-168).

— Vorkommen der *Helix* (*Campylaea*) *presli* und *Pupa edentula* bei Reichenhall. *l.c.* **1903**, (396-399).

**Pilsbry**, H[enry] A[ugustine]. Zweiter Beitrag zur Binnenconchylienfauna des Miocäns von Oppeln in Schlesien. [Von Prof. Dr A. Andreae.] *Nautilus*, Boston, Mass., **17**, 1903, (59-60).

**Prots**, A. Zur Binnenmolluskenfauna der Provinz Ostpreussen. Frankfurt a. M., NachrBl. D. malakozool. Ges., **35**, 1903, (1-6).

**Wüst**, Ewald. Pleistozäne Flussablagerungen mit *Succinea echumacherii* Andr. in Thüringen und im nördlichen Harz-Vorlande. *Zs. Natw.*, Stuttgart, **75**, (1902), 1903, (312-324, mit 1 Taf.).

— Zur Ausbreitung der *Helix* (*Xerophila*) *obvia* Hartm. in Deutschland. Frankfurt a. M., NachrBl. D. malakozool. Ges., **35**, 1903, (185-186).

#### de BRITISH ISLANDS.

**Blake**, J. H. The geology of the country around Reading. *Mem. Geol. Surv. Eng.*, London, **1903**, (Explanation of sheet 268), (92).

**Brady**, G. S. Report on dredging and other marine research off the N.E. coast of England in 1901. *Newcastle, Trans. Nat. Hist. Soc.*, **14**, 1903, (87-101).

**Bullen**, R. A. Notes on the Pleistocene non-marine Mollusca at Portland-Bill, and on Holocene Mollusca from (1) West Harnham, Wilts, (2) Harlton, Cambridgeshire, (3) the down above Durdle Barn Door, Dorset, and (4) Folkestone. London, *Proc. Malac. Soc.*, **5**, 1903, (317-319).

— A late Celtic Cemetery at Harlyn Bay. London, 1903, (16). From Rep. Tunbridge Wells, S.E.U. Sci. Soc., **1903**.

**Chaster**, G. W. and **Tomlin**, B. The re-discovery of *Vertigo lilljeborgi* in Ireland. *Irish Nat.*, Dublin, **12**, 1903, (13-14).

**Crowther**, J. E. A list of the Mollusca of the parish of Halifax. *Halifax Nat.*, **3**, 1903, (48-52).

**Evans**, W. *Helix lamellata* Jeff., in Midlothian, and *Planorbis spirorbis* Mull., in Fife. *Ann. Scot. Nat. Hist.*, Edinburgh, **1903**, (120-121).

**Farran**, G. P. Marine Fauna of the west coast of Ireland. Nudibranchiate Mollusca of Ballynakill and Bofin Harbours, Co. Galway. *Rep. Fish Ireland*, for 1901, pt. II, (123-132, 1 pl.).

**Garstang**, W. and **Sorby**, H. C. Mollusca (part of Marine Zoology). In the *Victoria History of Essex*, Vol. I, (81-86).

**Gill**, L. Note on the occurrence of Keisley Limestone pebbles in the Red Sandstone Rocks of Peel (Isle of Man). London, *Q. J. Geol. Soc.*, **59**, 1903, (307-310).

**Grierson**, P. H. Notes on the Mollusca of Co. Kilkenny. *Irish Nat.*, Dublin, **12**, 1903, (307-311).

**Herdman**, W. A. [Molluscs] in: The new biological station at Port Eriu, being the 16th annual report of the Liverpool Marine Biology Committee. Liverpool, *Trans. Biol. Soc.*, **17**, 1903, (15-67).

**Hey**, W. C. Shore-collecting near Scarborough and Filey. *Naturalist*, London, **1903**, (344-348).

**Hind**, W. Life-zones in the British Carboniferous Rocks. Report of the Committee. London, *Rep. Brit. Ass.*, **1902**, (210-224).

— On a new species of *Solenopsis* [*Solenomorpha*] from the Pendleside Series of Hodder Place, Stonyhurst (Lancashire). London, *Q. J. Geol. Soc.*, **59**, 1903, (334-336, with fig.).

**Hunt**, A. R. Notes and comments on the raised beaches of Torbay and Sharkham Point. Plymouth, *Trans. Devon Ass.*, **35**, 1903, (318-337).

**Johnson**, J. P. Notes on fossil and recent shells obtained on a visit to Cornwall. *Geol. Mag.*, London, [4], **10**, 1903, (25-28).

**Jukes-Browne**, A. J. The Cretaceous rocks of Britain. Vol. II. The Lower and Middle Chalk of England. *Mem. Geol. Surv. U.K.*, London, **1903**, (xiii + 568).

— Devonshire in the time of the Lower Chalk. Plymouth, *Rep. Devon Ass.*, **35**, 1903, (789-799, 1 pl.).



**Kennard, A. S.** Observations on the organic remains and nature of the soil associated with the Pile Structures in the Walbrook near London Wall. *Archaeological J.*, London, **60**, 1903, (230-235).

— and **Warren, S. H.** The Blown Sands and Associated Deposits of Towan Head, near Newquay, Cornwall. *Geol. Mag.*, London, [4], **10**, 1903, (19-25).

— — — — — On a Section of the Thames Alluvium in Bermondsey. *l.c.* (456-460, 525).

— and **Woodward, B. R.** Mollusca. In "The Exploration of the Caves of Kesh, County Sligo." Dublin, *Trans. Irish Acad.*, **32**, 1903, (181-183).

— — — — — On the occurrence of *Neritina grataloupiana* Fér. (hitherto misidentified as *N. fluriatilis*) in the Pleistocene gravels of the Thames at Swanscomb. London, *Proc. Malac. Soc.*, **5**, 1903, (320-321)

— — — — — Holocene deposits at Clifton Hampden, near Oxford. II. Zoology. Mollusca. Gloucester, *Proc. Cotteswold, Nat. F. Cl.*, **14**, 1903, (198-203).

— — — — — The non-marine Mollusca of the River Lea Alluvium at Walthamstow. Stratford, Essex Nat., **13**, 1903, (13-21, 115-116, with figs.).

— — — — — Notes on sections in the Lea Valley at Canning Town. *l.c.* (77-99).

**Lamplugh, G. W.** and **Walker, J. F.** On a fossiliferous band at the top of the Lower Greensand near Leighton Buzzard (Bedfordshire). London, *Q. J. Geol. Soc.*, **59**, 1903, (234-265, pls. XVI-XVIII).

**Lang, W. D.** On a fossiliferous bed in the Selbornian of Charmouth. *Geol. Mag.*, London, [4], **10**, 1903, (388-392, with 1 fig.).

**Pannell, J.** Additional notes upon the land and freshwater Mollusca of Surrey. *J. Conch.*, Leeds, **10**, 1903, (331).

**Patterson, A.** The Mollusca of the Great Yarmouth district. *Zoologist*, London, (Ser. 4), **7**, 1903, (182-188).

**Pearsey, F. G.** Notes on the marine deposits of the Firth of Forth, and their relation to its animal life. Glasgow, *Trans. Nat. Hist. Soc.*, **6**, 1903, (217-251, with map).

**Fetch, T.** Marine zoology at Filey. Naturalist, London, **1903**, (351).

— — — — — The Marine Fauna of the Hunber District and the Holderness Coast. Hull, *Trans. Sci. F. Nat. Cl.*, **3**, 1903, (27-41).

**Raid, C.** The geology of the country near Chichester. *Mem. Geol. Surv. Eng.*, London, **1903**, (iv + 52, with 14 text figs.).

**Reynell, A.** Note on the occurrence of *Planorbis marginatus* Drap. and *Limnaea pereger* (Müll.) in the Post-Pliocene of Bognor, Sussex. London, *Proc. Malac. Soc. Soc.*, **5**, 1903, (344-345).

**Smith, E. A.** On *Xylophaga praestans* n. sp. from the English Coast. *l.c.* (328-330, with figs.).

**Stebbing, W. P. D.** Excursion to Salisbury and the Oak of Wardour . . . Old Sarum and Stonehenge. London, *Proc. Geol. Ass.*, **18**, 1903, (146-149).

**Sykes, E. R.** Notes on some British *Eulimidae*. London, *Proc. Malac. Soc.*, **5**, 1903, (348-353, pl. XIV).

**Thompson, B.** The junction beds of the Upper Lias and Inferior Oolite in Northamptonshire. Pt. II: Stratigraphical and Palaeontographical. Northampton, *J. Nat. Hist. Soc.*, **11**, 1903, (197-216, 235-244); **12**, 1903, (54-69).

**Todd, R. A.** Notes on the invertebrate fauna and fish-food of the bays between the Start and Exmouth. Plymouth, *J. Mar. Biol. Ass.*, **6**, 1903, (541-561).

**Tomlin, B.** A new Irish *Vertigo*. *Irish Nat.*, Dublin, **12**, 1903, (110).

**Tomlin, J. R. le B.** and **Marquand, G. D.** The land and freshwater shells of the Channel Islands. *J. Conch.*, Leeds, **10**, 1903, (285-294).

— — — — — *Vertigo heldi* in Ireland. *l.c.* (307-308).

**Waterston, J.** Mollusca observed at Stromness, Orkney. *Ann. Scot. Nat. Hist.*, Edinburgh, **1903**, (52-53).

**Welch, R.** Pockets of land-shells, Bannmouth Dunes, Portstewart. *J. Conch.*, Leeds, **10**, 1903, (338-339).

**Wittlich, E.** Beitrag zur Kenntnis der alt-alluvialen Fauna im Mainthal. *Frankfurt a. M., NachrBl. D. malakozool. Ges.*, **35**, 1903, (11-14).

**Woodward, B. B.** List of British non-marine Mollusca. *J. Conch.*, Leeds, **10**, 1903, (352-367).

——— Mollusca. In the "Victoria History of the County of Cumberland." **1**, 1901, (99, 100).

——— Mollusca. In the "Victoria History of the County of Essex." **1**, (89-90).

——— Mollusca. In the "Victoria History of the County of Hertford." **1**, 1902, (81-82).

——— Mollusca. In the "Victoria History of the County of Norfolk." **1**, 1901, (87, 88).

——— Mollusca. In the "Victoria History of the County of Surrey." **1**, 1902, (71-72).

——— Mollusca. In the "Victoria History of the County of Worcestershire," **1**, 1901, (81-82).

——— and **Adams, I. E.** Mollusca. In the "Victoria History of the County of Northampton," **1**, 1902, (87-88).

**Woodward, H. B.** Excursion to Royston, Hertfordshire, May 16, 1903. *London, Proc. Geol. Ass.*, **18**, 1903, (166-170).

#### df FRANCE.

**Casati, commandant.** Comparaison des faunes malacologiques terrestres de la Corse et de la Sardaigne. *Feuille jeunes natural.*, Paris (sér. 4), **33**, 1902, (10-11); *Paris, C.-R. A.-s. franç., avanc. sci. (Ajaccio)*, 1902, (571-576).

——— Etude sur quelques coquilles de la région circum-méditerranéenne, établie avec le concours de M. Fagot. *Helix niciensis*. Etude des espèces du groupe. *Feuille jeunes natural.*, Paris, (sér. 4), **34**, 1903, (10-13).

——— Liste des mollusques aquatiques vivant dans la Fontaine, à Nîmes.

Nîmes, *Bul. soc. étud. sci. nat.*, (n. sér.), **29**, 1901, [1902], (14-19).

**Germain, Louis.** Etude sur les mollusques terrestres et fluviatiles vivants des environs d'Angers et du département de Maine-et-Loire. *Nantes, Bul. soc. sci. nat.*, (sér. 2, 3), **13**, 1903, (1-112).

**Granger, Albert.** Revision des espèces françaises du genre *Helix*. *Bordeaux, Actes soc. lin.*, **58**, 1903, (1-60).

**Lawessari.** Liste des coquilles recueillies au Val-André (Côtes-du-Nord). *J. conchyliol.*, Paris, **51**, 1903, (29-34).

**Letacq, A. L.** Liste des mollusques recueillis dans les cantons de Fresnay et de Saint-Paterne. *Mans (le), Bul. soc. agricult.*, (sér. 2, **30**), **38**, 1901, 1902, (136-143).

**Locard, Arnould.** Description de mollusques nouveaux appartenant à la faune souterraine de France et d'Italie. *Bul. Museum, Paris*, **1902**, (608-611, av. fig.).

**Peyrot.** Note sur quelques fossiles des faluns de la Touraine (Helvétien infér.) et des environs d'Orthez (Helvétien supér.). *Feuille jeunes natural.*, Paris, (sér. 4), **33**, 1903, (46-49, 53-56, 69-73, av. pl.).

#### dh ITALY, WITH SICILY AND SARDINIA.

**Bellini, R.** Contribuzione alla conoscenza della fauna dei molluschi marini dell'Isola di Capri. *Napoli, Boll. Soc. nat.*, **15**, (1901), 1902, (85-121).

**Kwiatkowski, C.** Alcune osservazioni intorno agli Pteropdi Gimnosomi del Mare Mediterraneo. *Padova, Atti Soc. ven. trent.*, (Ser. 2), **4**, fasc. 2<sup>a</sup>, (1900-1902), 1902, (39-58).

**Locard, Arnould.** Description de mollusques nouveaux appartenant à la faune souterraine de France et d'Italie. *Bul. Museum, Paris*, **1902**, (608-611, av. fig.).

#### di SWITZERLAND.

**Loriot, P[erceval] de.** Etude sur les mollusques et brachiopodes de l'Oxfordien supérieur et moyen du Jura bernois accompagnée d'une notice stratigraphique par F[rédéric] Koby. *Genève (W. Kündig & fils)*, 1901, (119, av. 7 pls.). 4to.

——— et **Girardot, Abel.** Etude sur les mollusques et brachiopodes de

l'Oxfordien supérieur et moyen du Jura lédonien. Première partie. Basel, Abh. Schweiz. Pal. Ges., **29**, 1902, (76, av. 5 pls. et 2 figs.).

*dk* AUSTRIA-HUNGARY.

**Osiki, Ernő.** Drei neue Clausilien aus Ungarn. (Ungarisch) Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., **1**, 1903, (107-108).

**Gredler, Vincenz.** Localer Beitrag zur Conchylienfauna von Kärnten. Carinthia II, Klagenfurt, **92**, 1902, (156-158).

**Pálffy, Mór.** Zwei neue *Inoceramus*-Riesen aus den oberen Kreide-Schichten der siebenbürgischen Landesteile. (Ungarisch u. Deutsch) Földt. Közl., Budapest, **33**, 1903, (445-451, 489-495, mit Taf. XI-XII).

*dl* BALKAN PENINSULA.

**Martens, E[duard]** von. Griechische Mollusken, gesammelt von Eberh. von Oertzen. Arch. Natg., Berlin, **69**, Bd 1, 1903, (372-374).

**Wohlberedt, Otto.** Nachtrag zur Molluskenfauna von Montenegro und Nord-Albanien. Frankfurt a. M. NachrBl. D. malakozool. Ges., **35**, 1903, (83-86).

*dm* MEDITERRANEAN AND ISLANDS.

**Kwiatkiewski, C.** Alcune osservazioni intorno agli Pteropodi Gimnosomi del Mare Mediterraneo. Padova, Atti Soc. ven. trent., (Ser. 2), **4**, fasc. 20, (1900 1902), 1902, (39-58).

*du* BLACK SEA.

**Andrusov, N.** Studien über die Brackwassercardiden. Lieferung 1. St. Petersburg, Mém. Ac. Sc., (8 F.), **13**, No. 3, 1903, (82, mit 2 fig. and 7 Taf.).

*e* ASIA.

**Andreae, A.** Land- und Süßwasserschnecken aus Zentral- und Ostasien. [In: K. Futterer, Durch Asien. Bd 3.] Berlin, 1903, (41-90, mit 1 Taf.).

**Gude, G. K.** A classified list of the helicoid land shells of Asia. J. Malac., London, **10**, 1903, (5-16, 45-62, 83-98, 129-136, pl. III).

*ea* ASIATIC RUSSIA.

**Dybowskij, W.** Beitrag zur Kenntniss der Molluskenfauna Kamtschatkas. St. Petersburg, Ann. Mus. zool. Ac. Sc., **8**, 1903, (40-55, mit 8 Fig.).

——— Zur Kenntniss der ostibirischen Landschnecken. Frankfurt a. M., NachrBl. D. malakozool. Ges., **35**, 1903, (7-10).

**Gariaev, V. P.** Bericht über eine Reise zur Untersuchung der Evertebratenfauna des Baikal-Sees im Sommer 1900 u. 1901. (Russ.) St. Petersburg, Trd. Troick-Kfacht. Otd. Russ. Geogr. Obsč., **V**, 2, 1902, [1903], (27-48, mit 1 Karte).

**Rosen, Otto Baron** von. Neue Arten aus dem Kaukasus und Zentralasien. Frankfurt a. M., NachrBl. D. malakozool. Ges., **35**, 1903, (178-182).

*eb* CHINA.

**Crich, G. C.** Notes on some specimens of straight shelled Nautiloidea collected by the Rev. Samuel Couling, M.A., Ching Chowfu, Kiaochow, North China. Geol. Mag., London, [4], **10**, 1903, (481-485, pl. XXII).

*ec* JAPANESE ISLANDS.

Illustration of some Japanese land shells. Nautilus, Philadelphia, Pa., **16**, 1903, (136-137, with pl.); [Errata], *Ibid.*, **17**, 1903, (12). [2231].

**Dean, Bashford.** Japanese oyster-culture. Washington, D.C. Bull., U.S. Fish Com., **22**, (1902), 1903, (13-37, with text fig. and pl.).

**Gude, G. K.** Classified list of the helicoid land shells of Siam. J. Malac., London, **10**, 1903, (5-16).

**Hirase, Y.** Catalogue of land shells of Japan to be had of Y. Hirase. Shimochoja-Machi, Karasunaru, Kyoto, Japan, 1903, ([1-24, with pl.]). [with Nautilus, Philadelphia, Pa., **16**, 1903].

**Pilsbry, Henry A**[ugustine]. Additions to the Japanese land snail fauna. No. 8. [nn. spp. in *Clausilia*]. Philadelphia, Pa., Proc. Acad. Nat. Sci., **55**, 1903, (315-319, with pl.).

———. A new Japanese *Pleurotomaria*. *l.c.* (496).

———. New land shells of the Japanese Empire. *Nautilus*, Philadelphia, Pa., **16**, 1902, (21-22).

———. *Zonitoides arboreus* (Say) in Japan. *l.c.* (119).

———. New Japanese marine mollusks. *l.c.* **17**, 1903, (69-71).

——— and **Hirase, Y.** New land shells of the Japanese empire. *l.c.* **16**, 1903, (114-117).

———. Descriptions of new Japanese land shells. *l.c.* (134-136); **17**, 1903, (31-32).

———. Notices of new Japanese land shells. *l.c.* (44-46).

———. Notices of new land shells of the Japanese empire. *l.c.* (52-55).

———. New land snails of the Japanese empire. *l.c.* (78-79).

**Sowerby, G. B.** Descriptions of fourteen new species of marine Mollusca from Japan. *Ann. Mag. Nat. Hist.*, London, (Ser. 7), **12**, 1903, (496-501).

**Uchiyama, R.** . . . Molluscs of Japan. (Japanese) *Dobuts. Z.*, Tokyo, **15**, 1903, (9-12, with pl.).

#### cd TONQUIN, ANNAM.

**Bavay, A. et Dautzenberg, Ph.** Description de coquilles nouvelles de l'Indo-Chine (3e suite). *J. conchyliol.*, Paris, **51**, 1903, (201-236, av. 8 pls.).

#### ce SIAM.

**Blanford, W. T.** Notes on Mr. W. M. Daly's collections of land and freshwater Mollusca from Siam. London, Proc. Malac. Soc., **5**, 1903, (274-284, pl. VIII).

#### cf BRITISH INDIA.

**Blanford, W. T.** Note on the supposed locality "Sulgranees" whence Dr.

J. E. Gray's type-specimens of Indian Jurassic Ammonites were said to have been obtained. London, Proc. Malac. Soc., **5**, 1903, (345).

**Cossmann, M.** Faune pliocénique de Karikal (Inde française). *J. conchyliol.*, Paris, **51**, 1903, (105-173, av. 4 pls.).

**Crick, G. C.** Note on Dr. J. E. Gray's type specimens of Jurassic Ammonites from India. London, Proc. Malac. Soc., **5**, 1903, (285-289).

———. On the *Ammonites robustus* (R. Strachey MS.) H. F. Blandford, from the Himalayas. *l.c.* (290-295, with fig.).

**Dienar, C.** Palaeontologia Indica. Series XV. Himalayan Fossils. Vol. II. Part I. The Cephalopoda of the Lower Trias. Calcutta (Geol. Survey Office). London (Kegan, Paul & Co.), (1-181, pls. i-xxiii). [Reviews], *Ann. Mag. Nat. Hist.*, London, (Ser. 7), **11**, 1902, (241-244).

**Lomas, J.** Report on the Sea bottoms and Calcretes collected by Prof. Herdman. In: Report Pearl Oyster Fisheries of the Gulf of Manaar. London, 1903, (147-162).

#### eg MALAY PENINSULA AND ARCHIPELAGO.

**Collinge, W. E.** Contributions to a knowledge of the Mollusca of Borneo. *J. Malac.*, London, **10**, 1903, (79-82, pls. VII-VIII).

———. Nonoperculate Mollusca of Malay Peninsula. Fascic. Malay., **11**, 1903, (205-216).

**Dautzenberg, Ph.** Contribution à la faune malacologique terrestre et d'eau douce des îles Obi et Iolo. *J. conchyliol.*, Paris, **51**, 1903; (5-20, av. 1 pl. et fig.).

**Gude, G. K.** Classified list of the helicoid land shells of the Malay Peninsula and the Malay Archipelago. *J. Malac.*, London, **10**, 1903, (45-62, 83-98).

**Martens, [Eduard]** von. Land- und Süßwasser-Conchylien von Ost-Borneo. Berlin, SitzBer. Ges. natf. Freunde, **1903**, (416-428).

**Möllendorff, O**[tto] von. Neue Landschnecken von Niederländisch-Indien. Frankfurt a. M., NachrBl. D. Malakozool. Ges., **35**, 1905, (156).

**Newton, R. B.** Notes on some Jurassic shells from Borneo, including a new species of *Trigonia*. London, Proc. Malac. Soc., **5**, 1903, (403-409, pl. XVI).

**Rolle, H.** Einige neue Binnen-Mollusken von den Molukken. Frankfurt a. M., NachrBl. D. malakozool. Ges., **35**, 1903, (23-24).

**Schepman, M[atheus] M[arinus].**

Three new species of *Oliva* from the Siboga-expedition. Helder, Tijdschr. Ned. Dierk. Ver., (Ser. 2), **8**, [1903], (67-69).

**Smith, E. A.** A new species of *Modiola* from Malacca. J. Conch., Leeds, **10**, 1903, (368, with fig.).

**Sykes, E. R.** On the land operculate Mollusca collected during the "Skeat Expedition" to the Malay Peninsula in 1899-1900. London, Proc. Zool. Soc., **1903**, **1**, (194-199, pl. XX).

Notes on, with illustrations of, Austro-Malayan land shells. J. Malac., London, **10**, 1903, (78, pl. VI).

**Tesch, J. J.** Thecosomata und Gymnosomata der Siboga-Expedition. Helder, Tijdschr. Ned. Dierk. Ver., (Ser. 2), **8**, [1903], (111-117).

#### ei ASIATIC TURKEY, ARABIA.

**Naegle, G.** Einiges aus Vorderasien. Frankfurt a. M., NachrBl. D. malakozool. Ges., **35**, 1903, (168-177).

**Sykes, E. R.** Description of *Cerastus dinshawi*, n. sp. from Aden, with a note on *Otopoma clausum* Sby. and *O. yemenicum* Brgt. London, Proc. Malac. Soc., **5**, 1903, (338-339, with figs.).

#### ek CASPIAN.

**Andrusov, N.** Studien über die Brackwassercardiden. Lieferung 1. St. Petersburg, Mém. Ac. Sc., (8 F.), **13**, No. 3, 1903, (82, mit 2 Fig. and 7 Taf.).

#### el PERSIAN GULF.

**Melville, J. C.** A revision of the *Columbellidae* of the Persian Gulf and North Arabian Sea, with description of *C. calliope*, n. sp. J. Malac., London, **10**, 1903, (27-31, with fig.).

**Melville, J. C.** and **Standen, R.** Descriptions of sixty-eight new Gastropoda from the Persian Gulf, Gulf of Oman, and North Arabian Sea, dredged by Mr. F. W. Townsend, of the Indo-European Telegraph Service, 1901-1903. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (289-324, pls. XX-XXIII).

The genus *Scala* (Klein) Humphrey, as represented in the Persian Gulf, Gulf of Oman, and North Arabian Sea, with descriptions of new species. J. Conch., Leeds, **10**, 1903, (340-351, pl. VII).

#### f AFRICA.

**Martens, [Eduard] von.** Die Verbreitung der Meer-Conchylien an den Küsten von West- und Süd-Afrika. Berlin, SitzBer. Ges. natf. Freunde, **1903**, (188-193).

#### fd WEST AFRICA.

**Dautzenberg, P.** Description de trois mollusques nouveaux provenant de l'état indépendant du Congo. Bruxelles, Ann. Soc. roy. malac., **26**, 1903, (3-7).

**Martens, [Eduard] von.** Süßwasser-Conchylien vom Südufer des Tsad-Sees. Berlin, SitzBer. Ges. natf. Freunde, **1901**, (5-10).

#### ff EAST AFRICA.

**Elliot, Sir C.** On some Nudibranchs from East Africa and Zanzibar. London, Proc. Zool. Soc., **1903**, **1**, (250-257); *l.c.* **2**, (354-385).

**Smith, E. A.** Descriptions of new species of land shells from Central Africa. J. Conch., Leeds, **10**, 1903, (315-319, pl. IV.).

Land and freshwater shells. In "Nat. Hist. Sokotra and Abd-el-Kuri," **1903**, (111-135, pls. XII-XIII).

#### fg SOUTH AFRICA.

**Melville, J. C.** and **Ponsonby, J. H.** Descriptions of thirty-one terrestrial and fluviatile mollusca from South Africa. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (595-609, pls. XXXI-XXXII).

**Smith, E. A.** A list of species of mollusca from South Africa, forming an appendix to G. B. Sowerby's "Marine

Shells of South Africa." London, Proc. Malac. Soc., 5, 1903, (354-402, pl. XV.).

**Sowerby, G. B.** Mollusca of South Africa. Cape Town, Mar. Invest., 2, 1903, (213-232, pls. III-V).

#### g NORTH AMERICA.

**Button, F. L.** West American *Cypræidae*. J. Conch., Leeds, 10, 1903, (254-258).

**Dall, William Healey.** Synopsis of the Carditacea and of the American species [with bibliography]. Philadelphia, Pa., Proc. Acad. Nat. Sci., 54, 1902, [1903], (696-716).

[**Orcutt, C. R.**] West American Mollusca. The West American Scientist, San Diego, Cal., 12, 1901, (67-68, 78-80, [105]-108).

**Smith, J. P.** The Carboniferous Ammonoids of America [with bibliography]. Washington, D.C., Dept. Int. U. S. Geol. Surv. Monogr., 42, 1903, (211 + iii, with pl.). 30 cm.

#### gf UNITED STATES.

**Gratcap, L. P.** Catalogue of the Binney and Bland collection of the terrestrial air-breathing mollusks of the United States and territories in the American Museum of Natural History, with enumeration of types and figured specimens, and supplementary notes. New York, N.Y., Bull. Amer. Mus. Nat. Hist., 14, 1901, (355-403, with 6 maps). 23.5 cm.

**Starki, V[ictor].** New North American *Pisidia*. Nautilus, Boston, Mass., 17, 1903, (42-43).

#### gg NORTH EASTERN UNITED STATES.

**Baker, Frank [ollins].** Pleistocene mollusks of White pond, New Jersey. Nautilus, Boston, Mass., 17, 1903, (38-39).

**Billups, A. C.** Fossil land shells of the Old Forest bed of the Ohio river. I. 16, 1902, (50-52).

——— [*Polygyra profunda* Say in Hamilton Co., Ohio.] I. c. (119).

**Blatchley, W[illie] S[tanley] and Daniels, L. E.** On some Mollusca known to occur in Indiana. A supplementary paper to Call's catalogue. Indiana, Rep. Dept. Geol. Nat. Res. Indianapolis, 27, 1902, [1903], (577-628, with pl.).

**Cleland, Herdman Fitzgerald.** A study of the fauna of the Hamilton formation of the Cayuga Lake section in central New York [with bibliography]. Washington, D.C., U. S. Dept. Int. Bull. Geol. Surv., No. 206, 1903, (112, with pl.).

**Daniels, L. E.** A check list of Indiana Mollusca, with localities. Indiana, Rep. Dept. Geol. Nat. Res., Indianapolis, 27, 1902, [1903], (629-652).

**Evermann, Barton Warren and Goldsborough, Edmund Lee.** Notes on the fishes and mollusks of lake Chautauqua, New York. New York, Forest Fish, Game Com. Rep. Albany, 1900, 1901, (357-366, with col. pl., and text fig.).

——— Notes on the fishes and mollusks of lake Chautauqua. New York, Washington, D.C., Rep. U. S. Com. Fish, 1901, 1902, (169-175).

**Ortmann, A[rnold] E[dward].** *Illex illecebrosus* (Lesueur), the "Squid from Onondaga Lake, N.Y." Science, New York, N.Y., (N. Ser.), 17, 1903, (30-31).

**Walker, Bryant.** Notes on eastern American *Ancylus*. Nautilus, Boston, Mass., 17, 1903, (13-19, 25-31, with pl.).

**Weeks, Wm. H., jun.** Shell collecting on Cliff island, Casco Bay, Maine. I. c. (119-120).

#### gh SOUTH EASTERN UNITED STATES.

**Aldrich, T[rumann] H[emingway].** Two new species of Eocene fossils from the lignitic of Alabama. Nautilus, Boston, Mass., 17, 1903, (19-20).

**Dall, William Healey.** Contributions to the Tertiary fauna of Florida, with especial reference to the siliceous beds of Tampa and the Pliocene beds of the Caloosahatchie river. Part 6, concluding the work. [Pelecypoda (concluded) and Brachiopoda, with discussion of geology]. Philadelphia, Pa., Trans. Wagner Free Inst. Sci., 3, 1903, ((i-xiv) + (1219-1654) with pl.). Separate. 28.5 cm.

**Pilsbry, Henry A[ugustine].** A new *Guppya* [*G. miamiensis* n. sp.] from Florida. Nautilus, Boston, Mass., 17, 1903, (77-78).

#### gi WESTERN UNITED STATES.

**Bartsch, Paul.** A new landshell [*Sonorella walcottiana* n. sp.] from California. Washington, D.C., Proc.

Biol. Soc., **16**, 1903, (103-104). Separate. 23.3 cm.

**Cockerell**, T[hodore] D[ru] A[rlson]. *Ashmunella thomsoniana cooperae* [at Pecos, New Mexico.] Nautilus, Boston, Mass., **17**, 1903, (36).

**Dall**, William Healey. Diagnoses of new species of mollusks from the Santa Barbara channel, California. Washington, D.C., Proc., Biol. Soc., **16**, 1903, (171-176). Separate. 23.3 cm.

**Elrod**, Morton J[ohn]. Montana shells—*Pyramidula strigosa*. Nautilus, Boston, Mass., **17**, 1903, (1-6).

Montana shells. Nature study lesson. Missoula, Bull. Univ. Mont., No. **17**, Biol. Ser. No. 5, 1903, (255-262, with pl.).

**Lowe**, Herbert N. Notes on the mollusk fauna of San Nicholas island. [Cal.] Nautilus, Boston, Mass., **17**, 1903, (66-69).

**Orcutt**, C. R. Shells of western lake and stream. The West American Scientist, San Diego Cal., **12**, 1901, (33-40).

**Pilabry**, Henry Augustine. New land Mollusca from Idaho. [*Pristiloma idahoense* n. sp.] Philadelphia, Pa., Proc. Acad. Nat. Sci., **54**, 1902, (593).

Mollusca of Western Arkansas and adjacent States, with a revision of *Paratitrea*. l.c. **55**, 1903, (193-214, with pl.).

Shells of Douglas co., central Washington. Nautilus, Boston, Mass., **17**, 1903, (84).

**Raymond**, William J. A new Californian *Tricia* [T. *ritteri* n. sp.] l.c. (85-86).

**Shattuck**, G. B. The mollusca of the Buda Limestone. [Texas]. [Dissertation (Ph.D.), Johns Hopkins university], with an appendix on the corals of the Buda limestone, by Thomas Wayland Vaughan. Washington, D.C., Bull. Dept. Int., U. S. Geol. Surv., No. **205**, 1903, (9-40, with pl.). Separate, 22.8 cm.

**Stanton**, Timothy W. A new freshwater Molluscan faunule from the Cretaceous of Montana. Philadelphia, Pa., Proc. Amer. Phil. Soc., **42**, 1903, (188-199, with 1 pl.).

**Stearns**, Robt. E. C. Mollusks occurring in Southern California. Nau-

tilus, Philadelphia, Pa., **16**, 1903, (133-134).

**Whitfield**, R[obert] P[arr]. Notice of six new species of Unios from the Laramie group. [Montana]. New York, N.Y., Bull. Amer. Mus. Nat. Hist., **19**, 1903, (483-487, with 3 pls.). Separate. 24.5 cm.

#### h CENTRAL AND SOUTH AMERICA.

**Ancey**, C. F. On some new land Mollusca from Middle America [n. spp. in *Streptostyla*]. l.c. (56-57).

New land snails from South America [n. spp. in *Porphyrobaphe* and *Bulimulus*]. l.c. (82-83, 89-90).

**Button**, F. L. West American *Cypreaeidae*. J. Conch., Leeds, **10**, 1903, (254-258).

**Dall**, William Healey. Synopsis of the Carditacea and of the American species [with bibliography]. Philadelphia, Pa., Proc. Acad. Nat. Sci., **54**, 1902, [1903], (696-716)

[Orcutt, C. R.] West American Mollusca. The West American Scientist, San Diego, Cal., **12**, 1901, (67-68, 78-80, [105]-108).

#### ha MEXICO.

**Fischer**, H. et **Chatelet**, G. Description d'une espèce nouvelle du genre *Glandina*. J. conchyliol., Paris, **51**, 1903, (321-322, av. fig. et pl.).

#### hb CENTRAL AMERICA.

**Preston**, H. B. Supposed new species of *Helicina* and *Bulimulus* from Costa Rica. J. Malac., London, **10**, 1903, (4, with figs.).

#### hc WEST INDIAN ISLANDS.

**Baker**, Frank Collins. A partial list of the marine mollusks of San Salvador, Bahamas. Nautilus, Boston, Mass., **17**, 1903, (57).

**Brown**, L. B. Notes on the land and freshwater shells of Barbados. J. Conch., Leeds, **10**, 1903, (266-273).

**Pilsbury**, Henry A[ugustine]. Land shells of Curacao. Nautilus, Boston, Mass., 17, 1903, (48).

——— A new Jamaican *Colobosigylus*. *L.c.* (65-66).

#### he COLUMBIA.

**Dall**, William Healey. Two new mollusks from the west coast of America. [*Sigaretus noyenii* n. sp. from Colombia and *Tonicia arnheimi* n. sp. from Galapagos Islands]. Nautilus, Boston, Mass., 17, 1903, (37-38).

#### hh BRAZIL.

**Smith**, E. A. Note on some Mollusks of the family *Bulimulidae* from Matto Grosso. London, Proc. Zool. Soc., 1903, 2, (70-71).

#### hi ARGENTINA.

**Bartsch**, Paul. A new *Scissurella* [*S. dalli* n. sp.] from Patagonia. Nautilus, Boston, Mass., 17, 1903 (90-91).

#### i AUSTRALASIA.

**Hedley**, C. Studies on Australian Mollusca. Part VII. Sydney, N.S.W. Proc. Linn. Soc. N. S. Wales, 27, (1902), 1903, (596-610, with 4 pls.).

#### ia NEW GUINEA AND ISLANDS FROM WALLACES LINE.

**Dautzenberg**, P. Description de mollusques nouveaux provenant de l'île Obi (Moluques). Naturaliste, Paris (sér. 2), 24, 1902, (247-248, av. fig.).

**Smith**, E. A. Description of a new species of *Gomphina*. . . J. Malac., London, 9, 1902, [1903], (109-110, with fig.).

**Sykes**, E. R. Descriptions of new land shells from the Austro-Malayan Region. *L.c.* 10, 1903, (64-67).

**Tesch**, J. J. Thecosomata and Gymnosomata der Siboga-Expedition. Helder, Tijdschr. Ned. Dierk. Ver., (Ser 2), 8, [1903], (111-117).

(N 2-5053)

#### ib BISMARCK ARCHIPELAGO.

**Hedley**, C. [Mollusca of the Gilbert Group.] Sydney, N.S.W., Rec. Austr. Mus., 5, 1903, (4, 5).

#### ic AUSTRALIA.

**Hedley**, C. Effect of the Bassian Isthmus upon the existing marine fauna: a study in ancient geography. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, 28, 1903, (876-883, with 1 map).

#### ie NEW SOUTH WALES.

**Hedley**, Charles. Mollusca. Part II. Scaphopoda and Gastropoda. Scientific Results of the trawling expedition of H.M.C.S. "Thetis" off the coast of New South Wales in February and March, 1898. Sydney, N.S.W., Mem. Austr. Mus., 4, 1903, (327-402, with 3 pls. and 53 text-figs.).

#### if VICTORIA.

**Barnard**, F. G. A. Excursion to Launching Place [Victoria]. [*Helix atramentaria*.] Vict. Nat., Melbourne, 19, 1903, (147).

**Gatliff**, J. H. Additions to the list of Victorian marine Mollusca. [41 species.] *L.c.* 20, 1903, (89-91).

**Pritchard**, G. B. and **Gatliff**, J. H. Catalogue of the Marine Shells of Victoria. Pts. VI, VII. Melbourne, Proc. R. Soc. Vict., 15, (N. Ser.), 1903, (176-223); 16, 1903, (96-139).

——— On some new species of Victorian Mollusca. *L.c.* (92-95, with pl. XV.)

#### il NEW HEBRIDES.

**Dautzenberg**, Ph. Revision des *Cypracidae* de la Nouvelle-Calédonie. J. conchyliol., Paris, 50, 1902, (201-384, av. 1 pl.).

**Fischer**, H. Description d'un *Oliva* nouveau provenant des Nouvelles-Hébrides. *L.c.* (409-411, av. fig. et pl.).

**Geret**, P. Variété nouvelle de *Cypraea* provenant de la Nouvelle-Calédonie. *L.c.* 51, 1903, (28).



**Godwin-Austen**, H. H. On the anatomy of two land molluscs (*Heliccion* (?) *villeyana* and *H* (?) *woodworthi* nn. spp.) from New Britain and Lifu, Loyalty Islands, collected by Dr. Arthur Willey, F.R.S., in 1895-97. London, Proc. Malac. Soc., **5**, 1903, (296-299, pl. IX).

**Face**, S. Critical notes on Hervier's monograph of the *Columbellidae* of New Caledonia with *C. hervieri* nom. nov. J. conchyliol., Paris, **50**, 1902, (412-422).

**Sykes**, E. R. On a small collection of marine shells from Surprise Island. J. Malac., London, **10**, 1903, (137-138).

#### k ARCTIC.

#### kd ISLANDS NORTH OF EUROPE AND ASIA.

**Knipovich** N. M. Zoologische Ergebnisse der russischen Expeditionen nach Spitzbergen. Mollusca und Brachiopoda IV. Nachtrag. St. Petersburg, Ann. Mus. zool. Ac. Sc., **8**, 1903, (133-143).

#### l ATLANTIC.

**Martens**, [Eduard] von. Die Verbreitung der Meer-Conchylien an den Küsten von West- und Süd-Africa. Berlin, SitzBer. Ges. natf. Freunde, **1903**, (188-193).

#### lc SOUTH ATLANTIC.

**Ancey**, C. F. Nouvelles remarques sur les faunes australes du globe. J. conchyliol., Paris, **51**, 1903, (39-47).

#### m INDIAN OCEAN.

#### ma INDIAN OCEAN AND ISLANDS NORTH OF THE EQUATOR.

**Eliot**, C. N. E. Nudibranchiata, with some remarks on the families and genera, and description of a new genus *Doridomorpha*. In Fauna and Geography of the Maldives and Laccadive Archipelagoes, **II**, 1903, (540-573, pl. XXXII).

**Melville**, J. C. and **Sykes**, E. R. Description of *Marginella lateritia* n. sp., from the Andaman Islands. London, Proc. Malac. Soc., **5**, 1903, (410, with fig.).

**Smith**, E. A. Land and fresh-water mollusca. Fauna of the Maldives and Laccadive Islands, **1**, (141-145).

——— Marine Mollusca. *l.c.* **II**, (580-630, pls. XXXV-XXXVI).

#### mb INDIAN OCEAN AND ISLANDS SOUTH OF THE EQUATOR.

**Martens**, [Eduard] von. Ueber einige Schnecken der Cocosinsel. Berlin, SitzBer. Ges. natf. Freunde, **1902**, (59-62).

——— Die Meeres-Conchylien der Cocos-Insel. *l.c.* (137-141, 253).

#### n PACIFIC.

#### nb SOUTH PACIFIC.

**Ancey**, C. F. Nouvelles remarques sur les faunes australes du globe. J. conchyliol., Paris, **51**, 1903, (39-47).

——— Faune malacologique terrestre de l'île des Cocos dans l'Océan Pacifique. *l.c.* (97-104).

#### nd SANDWICH ISLANDS.

**Ancey**, C. F. Etude sur la faune malacologique des îles Sandwich (5e partie). J. conchyliol., Paris, **51**, 1903, (295-307, av. 1 pl.).

**Baldwin**, D. D. Descriptions of new species of *Achatinellidae* from the Hawaiian islands. Nautilus, Boston, Mass., **17**, 1903, (34-36).

**Dall**, William Healey. A new genus of *Trochidae* [from Hawaii]. [*Stylobates aeneus* n. gen. and sp.] *l.c.* (61-62).

#### ng GALAPAGOS ISLANDS.

**Dall**, William Healey. Two new mollusks from the west coast of America. [*Sigaretus noyesii* n. sp. from Colombia, and *Tonicia arnheimi* n. sp. from Galapagos Islands]. Nautilus, Boston, Mass., **17**, 1903, (37-38).

## 2231 TAXONOMY AND SYSTEMATIC.

### GENERAL.

**Ancey, C. F.** Nouvelles remarques sur les faunes australes du globe. *J. conchyliol.*, Paris, **51**, 1903, (39-47).

**Blanford, W. T.** Notes on Mr. W. M. Daly's collections of land and freshwater Mollusca from Siam. London, *Proc. Malac. Soc.*, **5**, 1903, (283-284).

**Brady, G. S.** Report on dredging and other marine research off the N.E. coast of England in 1901. Newcastle, *Trans. Nat. Hist. Soc.*, **14**, 1903, (87-101).

**Brown, L. B.** Notes on the land and freshwater shells of Barbados. *J. Conch.*, Leeds, **10**, 1903, (266-273).

**Casey, T. L.** Notes on the Conrad collection of fossils, with descriptions of new species. Philadelphia, Pa., *Proc. Acad., Nat. Sci.*, **55**, 1903, (261-283).

**Collinge, W. E.** Contributions to a knowledge of the Mollusca of Borneo. *J. Malac.*, London, **10**, 1903, (79-82, pls. VII, VIII).

**Cossmann, M.** Faune pliocénique de Karikal (Inde française). *J. conchyliol.*, Paris, **51**, 1903, (105-173, av. 4 pl.).

**Dautzenberg, Ph.** Contribution à la faune malacologique terrestre et d'eau douce des îles Obi et Iolo. *Lc.* (5-20, av. 1 pl. et fig.).

**Gariaev, V. P.** Evertebratenfauna des Baikal-Sees. (Russ.) St. Petersburg, *Trd. Troick.-Kfacht. Otd. Russ. Geogr. Obsč.*, **v**, 2, 1902, [1903], (27-48, mit 1 Karte).

**Gatliff, J. H.** Additions to the list of Victorian marine Mollusca. [41 species]. *Vict. Nat., Melbourne*, **20**, 1903, (89-91).

**Hedley, C.** Studies on Australian Mollusca. Part VII. Sydney, N.S.W., *Proc. Linn. Soc. N. S. Wales*, **27**, (1902), 1903, (596-619, with 4 pls.).

**Jacot, E.** Etude sur les mollusques. *Messenger Suisse Rom., Fribourg*, **16**, 1903, (132-133, 140-141, 173-174, 188).

**Kennard, A. S. and Woodward, B. B.** The non-marine mollusca of the River Lea Alluvium at Walthamstow. *Strat.* (n 2-9053)

ford, Essex Nat., **13**, 1903, (13-21, 115-116, with figs.).

**Knipovic, N. M.** Zoologische Ergebnisse der russischen Expeditionen nach Spitzbergen. St. Petersburg, *Ann. Mus. Zool. Ac. Sc.*, **8**, 1903, (133-143).

**Kormos, T.** Paläontologische Mitteilungen. (Ungarisch u. Deutsch) *Földt. Közl., Budapest*, **33**, 1903, (451-462, 496-500, mit Taf. XIII).

**Lamplugh, G. W. and Walker, J. F.** On a fossiliferous band at the top of the Lower Greensand near Leighton Buzzard (Bedfordshire). London, *Q. J. Geol. Soc.*, **59**, 1903, (234-265, pls. XVI-XVIII, 2 text-figs.).

**Lawessari.** Liste des coquilles recueillies au Val-André (Côtes-du-Nord). *J. conchyliol.*, Paris, **51**, 1903, (29-34).

**Letacq, A. L.** Liste des mollusques recueillis dans les cantons de Fresnay et de Saint-Paterne. Mans (le), *Bul. soc. agricult.*, (sér. 2, **30**), **38**, 1901-1902, (136-143).

**Lo Bianco, S.** Le pesche abissali. eseguite da F. A. Krupp col yacht Puritan nelle adiacenze di Capri ed in altre località del Mediterraneo. *Mitt. Zool. Stat. Neapel, Berlin*, **16**, 1903, (109-279, mit 3 Taf.).

**Locard, A.** Description de mollusques nouveaux appartenant à la faune souterraine de France et d'Italie. *Bul. Muséum, Paris*, **1902**, (608-611, av. fig.).

——— *Notices conchyliologiques.* *Echange, Lyon*, **19**, 1903, (95-96, 101-103, 110-111).

**Loomis, F. B.** The dwarf fauna of the pyrite layer at the horizon of the Tully limestone in western New York [nn. spp. of Brachiopoda, Mollusca and Crustacea]. Albany, Univ., N.Y., *Bull. St. Mus.*, No. **69**, 1903, (892-920, with 5 pls.).

**Loriol, P. de et Girardot, A.** Etude sur les mollusques et brachiopodes de l'Oxfordien supérieur et moyen du Jura lédonien. Première partie. Basel, *Abh. Schweiz. Pal. Ges.*, **29**, 1902, (76 pp., 5 pls., 2 figs.).

**Martens, E. von.** Neue Meer-Conchylien aus den Sammlungen der deutschen Tiefsee-Expedition. (Abdr. aus: Berlin, Sitzber. Ges. natf. Freunde, Jg 1902, N. 9.) Frankfurt a. M., *NachrBl. D. malakozool. Ges.*, **35**, 1903, (97-105).

**Martens**, E. von. Süßwasser-Conchylien vom Südufer des Tsad-Sees. Berlin, SitzBer. Ges. natf. Freunde, 1903, (5-10).

**Martini und Chemnitz**. Systematisches Conchylien-Cabinet . . . neu hrsg. u. vervollständigt v. H. C. Küster nach dessen Tode fortgesetzt von W. Kobelt. Lfg 464 = Bd 1, H. 166 (S. 989-1028, mit Taf.); Lfg 465 = Bd 6, H. 15 (S. 1-24, mit Taf.); Lfg 466 = Bd 1, H. 167 (S. 1029-1060, mit Taf.); Lfg 467. 468. = Bd 1, H. 168. 169 (S. 773-836, mit Taf.); Lfg 469 = Bd 1, H. 170 (S. 401-448, mit Taf.); Lfg 470 = Bd 1, H. 171 (S. 837-884, mit Taf.); Lfg 471 = Bd 6, H. 16 (S. 25-32, 81-104 + 2 Bl., 241-273, mit Taf.); Lfg 472 = Bd 1, H. 172 (S. 1-24, 885-900); Lfg 473 = Bd 1, H. 173 (S. 901-956, mit Taf.); Lfg 474 = Bd 6, H. 17 (S. 33-56, mit Taf.); Lfg 475 = Bd 1, H. 174, (2 Bl., S. 957-1051); Lfg 476 = Bd 1, H. 175 (S. 25-56, mit Taf.); Lfg 477 = Bd 1, H. 176 (1061-1092, mit Taf.); Lfg 478 = Bd 6, H. 18 (S. 57-80, mit Taf.); Lfg 479 = Bd 1, H. 177 (S. 1-32, mit Taf.); Lfg 480 = Bd 6, H. 19 (S. 81-104, mit Taf.); Lfg 481 = Bd 6, H. 20 (S. 1-32, mit Taf.); Lfg 482 = Bd 6, H. 21 (S. 33-64, mit Taf.); Lfg 483 = Bd 6, H. 178 (S. 57-88, mit Taf.); Lfg 484 = Bd 6, H. 22 (S. 65-96, mit Taf.); Lfg 485 = Bd 6, H. 179 (S. 89-120, mit Taf.). Nürnberg (Bauer & Raspe), 1901-1903. 30 cm. Die Lfg 9 M. Auch in Sectionen zu 27 M.

**Molynaux**, A. J. C. Fossils in: The sedimentary deposits of Southern Rhodesia. London, Q. J. Geol. Soc., 59, 1903, (280-281).

**Newton**, R. B. Notes on some Jurassic shells from Borneo, including a new species of *Trigonia*. London, Proc. Malac. Soc., 5, 1903, (403-409, pl. XVI).

**Nordmann**, V. A conglomeration of mollusk shells from the bottom of the sea at Læsø. (Danish) Kjöbenhavn, Medd. Geol., 9, 1903, (37-44).

**Park**, J. Marine Mollusca of Totaranui Bay, Nelson. Wellington, Trans. N. Zeal. Inst., 35, 1903, (299-304).

**Philabry**, H. A. Mollusca of western Arkansas and adjacent states. Philadelphia, Pa., Proc. Acad. Nat. Sci., 55, 1903, (193-214, with pl.).

**Fritchard**, G. B. and **Gatliff**, J. H. Catalogue of the marine shells of Vic-

toria. Pt. VII. (97 species). Melbourne, Proc. R. Soc. Vict., 16, (N. Ser.), 1903, (93-139).

**Röhm**, J. Ueber cretaceische und eocäne Versteinerungen aus Fergana. [In: K. Futterer, Durch Asien. Bd 3.] Berlin, 1903, (93-112, mit 1 Taf.).

**Shattuck**, G. B. The mollusca of the Buda limestone. [Texas.] [Dissertation (Ph.D.), Johns Hopkins university], with an appendix on the corals of the Buda limestone by Thomas Wayland Vaughan. Washington, D.C., Bull. Dept. Int., U. S. Geol. Surv., No. 206, 1903, (9-36, with pl.). Separate. 22.8 cm.

**Smith**, E. A. Land and fresh-water mollusca. Fauna of the Maldives and Laccadive Islands, 1, (141-145).

——— Marine Mollusca. l.c. II, (589-630, pls. XXXV-XXXVI).

——— Land and fresh-water shells. In "Nat. Hist. Sokotra and Abd-el-Kuri," 1903, (111-135, pls. XII-XIII). 8vo.

——— A list of species of Mollusca from South Africa, forming an appendix to G. B. Sowerby's "Marine Shells of South Africa." London, Proc. Malac. Soc., 5, 1903, (394-402, pl. XV).

**Sturm**, F. Der Sandstein von Kieselingswalde in der Grafschaft Glatz und seine Fauna. Berlin, Jahrb. geol. Landesanst., 21, 1901. Abh. auss. st. Pers., (39-98, mit 10 Taf.).

**Tomlin**, J. R. le B. and **Marquand**, E. D. The land and freshwater shells of the Channel Islands. J. Conch., Leeds, 10, 1903, (285-294).

## PELECYPODA.

### GENERAL.

**Bloomer**, H. H. On the origin and function of the fourth aperture in some Pelecypoda. J. Malac., London, 10, 1903, (43-45).

**Boutan**, L. L'origine réelle des porres fines. Paris, C.-R. Acad. sci., 137, 1903, (1073-1075).

**Clarke**, J. M. Torsion of the Lamellibranch shell. An illustration of Noetling's law. Albany Univ., N.Y., Bull. St. Mus., No. 69, 1903, (1228-1233).

**Dall, W. H.** Contributions to the Tertiary fauna of Florida with especial reference to the silex beds of Tampa and the Pliocene beds of the Caloosahatchie river, including in many cases a complete revision of the generic groups treated of and their American Tertiary species. Part 6, concluding the work. [Pelecypoda (concluded) and Brachio-poda, with discussion of geology.] Philadelphia, Pa., Trans. Wagner Free Inst. Sci., **3**, 1903, ((i-xiv) + (1219-1654) with pl.). Separate. 28.5 cm.

**Dybovakiy, W.** Beitrag zur Kenntniss der Molluskenfauna Kamtchatkas. . . . St. Petersburg, Ann. Mus. zool. Ac. Sc., **8**, 1903, (40-55, mit 8 Fig.).

**Hind, W.** A monograph of the British Carboniferous Lamellibranchiata. Vol. II. London, Monogr. Palaeont. Soc., **1903**, (35-124, pls. VII-XXI).

**Ridewood, W. G.** On the structure of the gills of the Lamellibranchia. London, Phil. Trans. R. Soc., **194 B**, 1903, (147-284, with figs.).

**Ruedemann, R.** Noetling on the morphology of the Pelecypods. [Fritz Noetling: Beiträge zur Morphologie der Pelecypoden.] Amer. Geol., Minneapolis, Minn., **31**, 1903, (34-40, with pl.).

**Woods, H.** A monograph of the Cretaceous Lamellibranchia of England. Vol. I. London, Monogr. Palaeont. Soc., **1903**, (197-232, pls. XXXIX-XLII).

## PROTOBRANCHIATA.

*Leda futtereri*† n. sp. Fergans. Böhm, J. In: K. Futterer, Durch Asien, Bd 3, 1903, (93-112).

— *minuta*, var. *praeursor*† n. var. Arnold, R. [Reprinted from San Francisco, Mem. Cal. Acad. Sci., **3**.] in: Stanford University, Cal., Leland Stanford Jr. Univ., Hopkins Seaside Lab., Cont. Biol., No. **31**, 1903, (97).

— *rostellata* Conrad mut. *pygmaea*† n. mut. Loomis, F. B. Albany, Univ., N.Y., Bull. St. Mus., No. **69**, 1903, (892-920).

*Nucula lirata* Conrad mut. *pygmaea*† n. mut., *N. corbuliformis* Hall mut. *pygmaea*† n. mut., *N. varicosa* Hall mut. *pygmaea*† n. mut. Loomis, F. B. l.c. (892-920).

*Nucula nucleus*, renal organs. Buras R. H. London, Proc. Malac. Soc., **5**, 1903, (300-304, pl. X).

*Nuculites triquetus* Conrad mut. *pygmaeus*† n. mut., *Nuculites oblongatus* Conrad mut. *pygmaeus*† n. mut. Loomis, F. B. Albany, Univ., N.Y., Bull. St. Mus., No. **69**, 1903, (892-920).

*Palaeoneilo plana* Hall mut. *pygmaea*† n. mut., *P. constricta* Conrad mut. *pygmaea*† n. mut. Loomis, F. B. l.c. (892-920).

*Trigonia crenulata* Lam var. *peruviana*† n. var., nn. spp. Kreide, Südamerika. Paulcke, W. N. Jahrb. Min., Stuttgart, Beilagebd **17**, 1903, (252-312, mit 3 Taf.).

— *glaciana*† n. sp. Sturm, F. Berlin, Jahrb. geol. Landesant., **21**, 1901, Abh. auss. st. Pers., (39-98).

— *molengraaffi* n. sp. Borneo. Newton, R. B. London, Proc. Malac. Soc., **5**, 1903, (403-403, pl. XVI, figs. 1-6).

## FILIBRANCHIATA.

### GENERAL.

List, T. Die Mytiliden des Golfes von Neapel und der angrenzenden Meeres-Abschnitte. Tl. I. (Fauna und Flora des Golfes von Neapel. 27. Monographie [Jg 20.]) Berlin, 1902, (X + 312, mit 22 Taf.). 33 cm. 120 M.

### SPECIAL.

*Area*† nn. spp. Casey, T. L. Philadelphia, Pa., Proc. Acad. Nat. Sci., **55**, 1903, (261-283).

— *justinae*† n. sp. Wolleemann, A. Berlin, Jahrb. geol. Landesanst., **21**, 1901, Abh. russ. st. Pers., (1-30).

— *pharaonis* P. Fischer, identifié avec *A. ehrenbergi*. Lamy, Ed. J. conchliol., Paris, **51**, 1903, (323-325).

*Cucullaea trichmulleri*† n. sp. Sturm, F. Berlin, Jahrb. geol. Landesant., **21**, 1901, Abh. auss. st. Pers., (39-98).

*Gastrochaena striatula*† n. sp. Aldrich, T. H. Nautilus, Boston, Mass., **17**, 1903, (19-20).

*Modiola evansi* n. sp. Malacca. Smith, E. A. J. Conch., Leeds, **10**, 1903, (368, with figs.).

— *victoriae* n. sp. Pritchard, G. B. and Gatling, J. H. Melbourne, Proc. R. Soc. Vict., **16**, (N. Ser.), 1903, (93-4, with pl. XV).

*Myulina excentrica*† n. sp. Deutschland oberdevonisch. **Drevermann**, F. Berlin, Jahrb. geol. Landesant., **21**, 1901, Abh. auss. st. Pers., (99–207).

*Mytilus gallo-provincialis*, origine des perles. **Dubois**, R. Paris, C.-R. Acad. sci., **136**, 1903, (178–179).

*Nuculina liasina*† n. form. Alps. **Bistram**, A. Freiburg i. B., Ber. natf. Ges., **13**, 1903, (116–213).

*Pectunculus mundus* n. sp. Japan. **Sowerby**, G. B. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (501).

*Savignyarea Jousseau*, le prétendu genre. **Lamy**, E. Bul. Muséum, Paris, **1903**, (140–142).

## PSEUDOLAMELLIBRANCHIATA.

### GENERAL.

**Dubois**, R. Sur l'acclimatation et la culture des Pintadines ou huîtres perlières vraies sur les côtes de France, et sur la production forcée des perles fines. Paris, C.-R. Acad. sci., **137**, 1903, (611–613).

**Perrier**, E. Remarques à propos de la communication de M. Raphaël Dubois, du 19 octobre 1903, "Sur les huîtres perlières vraies." *l.c.* (682).

### SPECIAL.

*Amusium concentricum*† n. sp. **Hind**, W. Vol. II, London, Monogr. Palaeont. Soc., **1903**, (122).

——— *paucilirata* n. sp. **Smith**, E. A. Fauna Mald. Laccad. Arch., **II**, (623).

*Avicula kieselingscaldensis*† n. sp. **Sturm**, F. Berlin, Jahrb. geol. Landesant., **21**, 1901, Abh. auss. st. Pers., (39–98).

——— *margaritifera*. **Herdman**, W. A. Part I. Pearl Oyster Report. London, 1903, (146).

——— (*Leptodesma*) *valsoldae*† n. form. **Bistram**, A. Freiburg i. B., Ber. natf. Ges., **13**, 1903, (116–214).

*Aviculopecten*† nn. spp. **Hind**, W. Vol. II, London, Monogr. Palaeont. Soc., **1903**, (74–99).

*Conocardium eboraceum* Hall, mut. *pygmaeum*† n. mut. **Loomis**, F. B. Albany, Univ., N.Y., Bull. St. Mus., No. **69**, 1903, (892–920).

*Daonella*† spp. des deutschen Muschelkalkes. **Tornquist**, A. N. Jahrb. Min., Stuttgart, **1903**, **2**, (83–92, mit 1 Taf.).

*Dimyopsis emmerichi*† n. nom. Alps. **Bistram**, A. Freiburg i. B., Ber. natf. Ges., **13**, 1903, (160).

*Ezogyrta clarki*† n. sp. Buda Limestone, Texas. **Shattuck**, G. B. Washington, D.C., Bull. Dept. Int. U. S., Geol. Surv., No. **205**, 1903, (9–36, with pl.).

——— *reissi*† n. sp. Kreide, Südamerika. **Stein**, M. (MSS.) in **Paulcke**, W. N. Jahrb. Min., Stuttgart, Beilagebd **17**, 1903, (252–312, mit 3 Taf.).

*Gryphaea romanoirskii*† n. nom. = *G. kaufmanni*† Rom. **Böhm**, J. In: K. Futterer, Durch Asien, Bd **3**, 1903, (93–112).

*Inoceramus*† nn. spp. **Pálffy**, M. Földt. Közl., Budapest, **33**, 1903, (445–451, 489–495, mit. Taf. XI–XII).

*Janira gardineri* n. sp. **Smith**, E. A. Fauna Mald. Laccad. Arch., Vol. **II**, (622).

*Lima elliptica*, note on the name. **Sykes**, E. R. J. Malac., London, **10**, 1903, (104).

——— *shumardi*† n. sp. Buda Limestone, Texas. **Shattuck**, G. B. Washington, D.C., Bull. Dept. Int., U.S., Geol. Surv., No. **205**, 1903, (9–36, with pl.).

*Limatulina scotica*† n. sp. **Hind**, W. London, Monogr. Palaeont. Soc., **1903**, (36).

*Limea delanoëi*† n. sp. Blättermergel von Theben. **Oppenheim**, P. München, Sitzber. Ak. Wiss., math.-phys. Cl., **32**, (1902), 1903, (435–456).

*Mytilarca eduliformis*† n. sp. Upper Silurian, New York. **Clarke**, J. M. and **Euedemann**, R. Albany, Univ. N.Y., Mem. St. Mus., No. **5**, 1903, (195).

*Obliquipecten* n. gen., *O. laevis* n. sp. **Hind**, W. Vol. II, London, Monogr. Palaeont. Soc., **1903**, (114–115).

*Ostrea*. Studium der Austernwirthschaft. (Russ.) **Karpov**, V. Vést. rybopromysl., St. Peterburg, **1903**, **18**, (269–345).

*Osorea* spp. Japan. Dean, B. Washington, D.C. Bull. U.S. Fish Com., **22**, (1902), 1903, (13-37, with text fig. and pl.).

—— *edulis* with blue green gills. Mollisch, H. Berlin, Ber. D. bot. Ges., **21**, 1903, (23-26, mit 1 Taf.).

—— Nordmann, V. Kjöbenhavn, Medd. Geol., **9**, 1903, (45-66).

*Palaeolima* † n. gen., *P. laevis*, *P. obliquiradiata* nn. spp. Hind, W. Vol. II, London, Monogr. Palaeont. Soc., **1903**, (38-40).

*Pecten*† nn. spp. Arnold, R. [Reprinted from San Francisco, Mem. Cal. Acad. Sci., **3**.] in Stanford University, Cal., Leland Stanford Jr. Univ., Hopkins Seaside Lab., Cont. Biol., No. **31**, 1903, (1-420).

—— nu. spp. Smith, E. A. Fauna Mald. Laccad. Arch., **II**, (621-622).

—— *aequisulcatus*. Williamson, Mrs. M. B. Los Angeles, Bull., So. Cal. Acad. Sci., **1**, 1902, ([50]-61, with pl.).

—— *barthi*† n. sp. Wollemaun, A. Berlin, Jahrb. geol. Landesanst., **21**, 1901, Abh. auss. st. Pers., (1-30).

—— *elegantissimus*, note. nn. spp. Bavay, A. J. conchyliol., Paris, **50**, 1902, (403-404, av. fig. et pl.).

—— *laquaetus* Marenz, notes on the habits. Takeshita, T. Dobuts. Z., Tokyo, **15**, 1903, (359-365).

—— *opercularis*, evolution; comparison of spp. from different localities of Great Britain. Davenport, C. B. Boston, Mass., Proc. Amer. Acad. Arts Sci., **39**, 1903, (121-159).

*Pseudamusium*† nn. spp. Hind, W. Vol. II, London, Monogr. Palaeont. Soc., **1903**, (109-111).

*Pseudomonotis bolgiensis*† n. form. Bistram, A. Freiburg i. B., Ber. natf. Ges., **13**, 1903, (116-214).

*Spondylus* nn. spp. Philippines and Moluccas. Sowerby, G. B. J. Malac., London, **10**, 1903, (77, pl. V, fig. 6, 9).

*Synceylonema carboniferum*† n. sp. Hind, W. Vol. II, London, Monogr. Palaeont. Soc., **1903**, (120).

## EULAMELLIBRANCHIATA.

## Submytilacea.

## GENERAL.

Dall, W. H. Synopsis of the Carditacea and of the American species [with bibliography]. Philadelphia, Pa., Proc. Acad. Nat. Sci., **54**, 1902, [1903], (696-716).

—— Synopsis of the family *Astartidae*, with a review of the American species. Washington, D.C., Smithsonian Inst., Nation. Mus. Proc., **26**, 1903, (933-951, with 2 pls.). Separate 24.3 cm.

—— Review of the classification of the Cyrenacea. Washington, D.C., Proc. Biol. Soc., **16**, 1903, (5-8). Separate 23.3 cm.

Dybowski, W. Fauna der Binnenmollusken Littauen's. 1. Familia *Cycladidae* Clessin. Frankfurt a. M., NachrBl. D. malakozool. Ges., **35**, 1903, (76-83).

Frierson, L. S. Observations on the byssus of *Unionidae*. Nautilus, Boston, Mass., **17**, 1903, (76-77).

Sterki, V. Notes on the *Unionidae* and their classification. Amer. Nat., Boston, Mass., **37**, 1903, (103-113).

Voinea, J. Ueber die Entwicklung der Kiemen der Najaden. Diss. München (Druck v. M. Ernst), 1903, (45, mit 4 Taf.). 22 cm.

## SPECIAL.

*Aligena cerritensis*† n. sp. Arnold, R. [Reprinted from San Francisco, Mem. Cal. Acad. Sci., **3**.] in Stanford University, Cal., Leland Stanford Jr. Univ., Hopkins Seaside Lab., Cont. Biol., No. **31**, 1903, (1-420).

*Anodonta*, Parasitismus der Larven. Faussek, V. St. Peterburg, Mém. Ac. Sc., (8 F.), **13**, No. 6, 1903, (132), mit dtshr Tafelerklärung, (133-141, mit 8 Taf.).

—— et *Larus*. Forel, F. A. Lausanne, Bul. Soc. Sci. Nat., **38**, 1902, (XXI); Arch. Sci. Phys., Genève, (sér. 4), **13**, 1902, (605).

—— *cynna*, the nervous system. Latter, O. H. Nature, London, **68**, 1903, (623).

*Astarte*\*† nn. spp. America. **Dall**, W. H. Washington, D.C., Smithsonian Inst., Nation. Mus. Proc., **26**, 1903, (946-948).

———† nn. spp. Tertiary, Florida. **Dall**, W. H. Philadelphia, Pa., Trans. Wagner Free Inst. Sci., **3**, 1903, (i-xiv + 1219-1654).

——— (*Crassinella*) *brauneri*† n. sp. **Arnold**, R. [Reprinted from San Francisco, Mem. Cal. Acad. Sci., **3**] in Stanford University, Cal., Leland Stanford Jr. Univ., Hopkins Seaside Lab., Cont. Biol., No. **34**, 1903, (1-420).

*Batissa schmidti* n. sp. Ost.-Borneo. **Martens**, E. von. Berlin, SitzBer. Ges. Natf. Freunde, **1903**, (416-428).

*Collocardia* (*Agriopoma*)† nn. spp. Tertiary, Florida. **Dall**, W. H. Philadelphia, Pa., Trans. Wagner Free Inst. Sci., **3**, 1903, (i-xiv + 1219-1654).

*Cardita* (*Carditamera*)† nn. spp. Tertiary, Florida. **Dall**, W. H. Philadelphia, Pa., Trans. Wagner Free Inst. Sci., **3**, 1903, (i-xiv + 1219-1654).

——— *abbreviata* n. sp. Japan. **Sowerby**, G. B. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (500-501).

——— *aldrichi*† n. sp. **Casey**, T. L. Philadelphia, Pa., Proc. Acad. Nat. Sci., **55**, 1903, (261-283).

——— *chaylani*† n. sp. Etampes. **Maurier**, S. Naturaliste, Paris, sér. 2), **25**, 1903, (55-56, av. fig.).

——— (*Glans*) *sulcosa* n. sp. America. **Dall**, W. H. Philadelphia, Pa., Proc. Acad. Nat. Sci., **54**, 1902, [1903], (696-716).

*Codakia* (*Jagonia*)† nn. spp. Tertiary, Florida. **Dall**, W. H. Philadelphia, Pa., Trans. Wagner Free Inst. Sci., **3**, 1903, (i-xiv + 1219-1654).

*Corbiculina*, n. sect. (Type *Corbicula angasi* Prime). **Dall**, W. H. Washington D.C., Proc. Biol. Soc., **16**, 1903, (6).

*Crassatellites* (*Crassinella*, *Scambula*)† nn. spp. Tertiary, Florida. **Dall**, W. H. Philadelphia, Pa., Trans. Wagner Free Inst. Sci., **3**, 1903, (i-xiv + 1219-1654).

*Cyclocalyx*\*† n. sect. (type *Pisidium scholtzii* Prime). **Dall**, W. H. Washington, D.C., Proc. Biol. Soc., **16**, 1903, (7).

*Cymatocyclas* n. subgen., (type *Pisidium compressum* Prime). **Dall**, W. H. l.c. (7).

*Cyrena* (*Pseudocyrena*) *dupliniana*† n. sp. Tertiary, Florida. **Dall**, W. H. Philadelphia, Pa., Trans. Wagner Free Inst. Sci., **3**, 1903, (i-xiv + 1219-1654).

*Cyrenodonax*† n. sect., (type *C. formosana* Dall.) **Dall**, W. H. Washington, D.C., Proc. Biol. Soc., **16**, 1903, (6).

*Diaurora* n. nom. = *Aurora* Simpson not Rog. not Sollas. **Cockerell**, T. D. A. Nautilus, Boston, Mass., **16**, 1903, (118).

*Dicaricella*† nn. spp. Tertiary, Florida. **Dall**, W. H. Philadelphia, Pa., Trans. Wagner Free Inst. Sci., **3**, 1903, (i-xiv + 1219-1654).

*Erycinella* (*Carditopsis*) *bernardi*† n. sp. **Dall**, W. H. Tertiary, Florida. l.c. (i-xiv + 1219-1654).

*Felania minor* n. sp. Japan. **Sowerby**, G. B. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (501).

*Kellia natalensis* n. sp. Durban. **Smith**, E. A. London, Proc. Malac. Soc., **5**, 1903, (396, pl. XV, fig. 8).

*Kobyia* n. gen., *K. typica*† n. sp. Oxfordien, Jura. **Loriot**, P. de und **Girardot**, A. Basel, Abh. Schweiz. Pal. Ges., **29**, 1902, (58).

*Lirodiscus uralesii*† n. sp. Tertiary, Florida. **Dall**, W. H. Philadelphia, Pa., Trans. Wagner Free Inst. Sci., **3**, 1903, (i-xiv + 1219-1654).

*Lucina*† un. spp. **Casey**, T. L. Philadelphia, Pa., Proc. Acad. Nat. Sci., **55**, 1903, (261-283).

———† nn. spp. Tertiary, Florida. **Dall**, W. H. Philadelphia, Pa., Trans. Wagner Free Inst. Sci., **3**, 1903, (i-xiv + 1219-1654).

*Miodontiscus* n. nom. = *Miodon* Carpenter. **Dall**, W. H. Nautilus, Philadelphia, Pa., **16**, 1903, (143).

*Miodontopsis*† n. nom. = *Miodon*† Sandberger not Carpenter). **Dall**, W. H. Washington, D.C., Proc. Biol. Soc., **16**, 1903, (5).

*Myrtaea*† nn. spp. Tertiary, Florida. **Dall**, W. H. Philadelphia, Pa., Trans. Wagner Free Inst. Sci., **3**, 1903, (i-xiv + 1219-1654).

*Paracyclas lirata* Conrad mut. *pygmaea*† n. mut. **Loomis**, F. B. Albany, Univ., N.Y., Bull. St. Mus., No. 69, 1903, (892-920).

*Phacoides*† nn. spp. Tertiary, Florida. **Dall**, W. H. Philadelphia, Pa., Trans. Wagner Free Inst. Sci., 3, 1903, (i-xiv + 1219-1654).

*Pisidium* nn. spp. **Glessin**, In: K. Futterer, Durch Asien, Bd 3, 1903, (41-90).

———\*† nn. spp. **Sterki**, V. Nautilus, Boston, Mass., 17, 1903, (20-22, 42-43, 79-82).

*Simpsonella* n. nom. = *Dalliella* Simpson not Coesmann. **Cockerell**, T. D. A. l.c. 16, 1903, (118).

*Tellinocyclus*† n. sect., (type *Cyrena tellinella*† Deshayes). **Dall**, W. H. Washington, D.C., Proc. Biol. Soc., 16, 1903, (6).

*Tropidocyclus*† n. subgen. (type *Pisidium henslowianum* Sheppard.) **Dall**, W. H. l.c. (7).

*Unio*† nn. spp. Montana, Cretaceous. **Stanton**, T. W. Philadelphia, Pa., Proc. Amer. Phil. Soc., 42, 1903, (188-199).

———† nn. spp. Montana, from the Laramie. **Whitfield**, R. P. New York, N.Y., Bull. Amer. Mus. Nat. Hist., 19, 1903, (483-487, with 3 pls.).

——— *briarti* n. sp. Congo. **Dautzenberg**, P. Bruxelles, Bull. Soc. roy. malac., 286, 1903, (3-7).

——— *declivis*, specific value. **Frierson**, L. S. Nautilus, Boston, Mass., 17, 1903, (49-51, with pl.).

*Venericardia*† nn. spp. Tertiary, Florida. **Dall**, W. H. Philadelphia, Pa., Trans. Wagner Free Inst. Sci., 3, 1903, (i-xiv + 1219-1654).

——— (*Cyclocardia*) nn. spp. America. **Dall**, W. H. Philadelphia, Pa., Proc. Acad. Nat. Sci., 54, 1902, [1903], (696-716).

——— *ticksburgensis*† n. sp. **Casey**, T. L. l.c. 55, 1903, (261-283).

### Tellinacea.

*Semele pulchra* var. *monteireyi*† n. var. **Arnold**, R. [Reprinted from San Francisco, Mem. Cal. Acad. Sci., 3.] in

Stanford University, Cal., Leland Stanford Jr. Univ., Hopkins Seaside Lab., Cont. Biol., No. 31, 1903, (166).

*Tellina consanguinea* n. sp. Japan. **Sowerby**, P. B. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (500).

——— *pilsbryi*† n. sp. **Casey**, T. L. Philadelphia, Pa., Proc. Acad. Nat. Sci., 55, 1903, (261-283).

*Zenatia victorias* n. sp. **Pritchard**, G. B. and **Gatliff**, J. H. Melbourne, Proc. R. Soc. Vict., 16, (N. Ser.), 1903, (92-3, with pl. XV).

### Veneracea.

*Anomalocardia*† nn. spp. Tertiary, Florida. **Dall**, W. H. Philadelphia, Pa., Trans. Wagner Free Inst. Sci., 3, 1903, (i-xiv + 1219-1654).

*Callista subdiaphana* var. *pedroana*† n. var. **Arnold**, R. [Reprinted from San Francisco, Mem. Cal. Acad. Sci., 3.] in Stanford University, Cal., Leland Stanford Jr. Univ., Hopkins Seaside Lab., Cont. Biol., No. 31, 1903, (144).

*Chione*† nn. spp. Tertiary, Florida. **Dall**, W. H. Philadelphia, Pa., Trans. Wagner Free Inst. Sci., 3, 1903, (i-xiv + 1219-1654).

——— *peronii* Lamarck, *C. scalarina* L., *C. strigosa* L. **Pritchard**, G. B. and **Gatliff**, J. H. Melbourne, Proc. R. Soc. Vict., 16, (N. Ser.), 1903, (94-5, with pl. XV).

*Cyclinella gatunensis*† n. sp. Tertiary, Florida. **Dall**, W. H. Philadelphia, Pa., Trans. Wagner Free Inst. Sci., 3, 1903, (i-xiv + 1219-1654).

*Cytherea*† nn. spp. Tertiary, Florida. **Dall**, W. H. l.c. (i-xiv + 1219-1654).

*Dosinia* (*Dosinidia*)† nn. spp. Tertiary, Florida. **Dall**, W. H. l.c. (i-xiv + 1219-1654).

*Gafrarium* (*Gouldia*)† nn. spp. Tertiary, Florida. **Dall**, W. H. l.c. (i-xiv + 1219-1654).

*Gemma*† nn. spp. Tertiary, Florida. **Dall**, W. H. l.c. (i-xiv + 1219-1654).

*Gomphina maorum* n. sp., New Zealand. **Smith**, E. A. J. Malac., London, 9, 1902, [1903], (109-110, with fig.).



*Grateloupia (Cytheriopsis) aluminensis*† nn. spp. Tertiary, Florida. **Dall**, W. H. Philadelphia, Pa., Trans. Wagner Free Inst. Sci., **3**, 1903, (i-xiv + 1219-1654).

*Macrocallista acuminata*† n. sp. Tertiary, Florida. **Dall**, W. H. l.c. (i-xiv + 1219-1654).

*Pitaria (Hyphantosoma, Lamellioncha)*† nn. spp. Tertiary, Florida. **Dall**, W. H. l.c. (i-xiv + 1219-1654).

*Tivela jamaicensis*† n. sp. Tertiary, Florida. **Dall**, W. H. l.c. (i-xiv + 1219-1654).

*Transennella*† nn. spp. Tertiary, Florida. **Dall**, W. H. l.c. (i-xiv + 1219-1654).

*Venus mercenaria*, habits. **Kellogg**, J. S. Albany Univ., N.Y., Bull. St. Mus., No. **71**, 1903, (27, with pl.).

———— *neoclathrata*† n. nom = *V. clathrata*† Desh. **Dollfus**, G. F. J. conchyliol., Paris, **50**, 1902, (423-428).

———— *sudetica*† n. sp. **Sturm**, F. Berlin, Jahrb. geol., Landesant., **21**, 1901. Abh. auss. st. Pers., (39-98).

## Cardiaceae.

### GENERAL.

**Andrusov**, N. Studien über die Brackwassercardiden. Lieferung 1. St. Petersburg, Mém. Ac. Sc., (8 F.), **13**, No. 3, 1903, (82, mit 2 Fig. und 7 Taf.).

### SPECIAL.

*Cardium*, numerical variation of ribs. **Baker**, F. C. Amer. Nat., Boston, Mass., **37**, 1903, (481-488).

————† nn. spp. Buda Limestone, Texas. **Shattuck**, G. B. Washington, D.C., Bull. Dept. Int., U. S., Geol. Surv., No. **205**, 1903, (9-36).

———— *levisulcatum* n. sp. **Smith**, E. A. Fauna Mald. Laccad. Arch., **II**, (624).

*Chama*† nn. spp. Tertiary, Florida. **Dall**, W. H. Philadelphia, Pa., Trans. Wagner Free Inst. Sci., **3**, 1903, (i-xiv + 1219-1654).

*Conocardium beushausenii*† n. sp. Deutschland oberdevonisch. **Drever-**

**mann**, F. Berlin, Jahrb. geol. Landesant., **21**, 1901, Abh. auss. st. Pers., (93-207).

*Echinochama antiquata*† n. sp. Tertiary, Florida. **Dall**, W. H. Philadelphia, Pa., Trans. Wagner Free Inst. Sci., **3**, 1903, (i-xiv + 1219-1654).

*Limnocardium subequamulosum* n. sp. **Andrusov**, A. A. St. Petersburg, Mém. Ac. Sc., (8 F.), **13**, No. 3, 1903, (82, mit 2 Fig. und 7 Taf.).

*Radiolites ga'ensis*† n. sp. **Dacqué**, E. Palaeontographica, Stuttgart, **30**, II, 1903, (337-339, 3 Taf.).

## Myacea.

*Ceratisolen*, anatomy of certain species. **Bloomer**, H. H. J. Malac., London, **10**, 1903, (31-40, pl. II).

———— *legumen*, note on a malformed specimen. **Bloomer**, H. H. l.c. (104).

*Corbula laqueata*† n. sp. **Casey**, T. L. Philadelphia, Pa., Proc. Acad. Nat. Sci., **55**, 1903, (261-283).

———— *muschketovii*† n. sp. **Fergana**, Böhlm., J. In: K. Futterer, Durch Asien, Bd. **3**, 1903, (93-112).

———— *rugifera* n. sp. **Natal**, **Smith**, E. A. London, Proc. Malac. Soc., **5**, 1903, (399, pl. XV, figs. 9-10).

*Fistulana clava* Lamk., perforating a shell of *Mitra interlirata* Reeve. **Sowerby**, G. B. and **Fulton**, H. C. l.c. (345, pl. XVI).

*Mya arenaria*, Einwanderung. **Lorenzen**, A. Prometheus, Berlin, **15**, 1903, (61-62).

———— *Fischerei* in der Passamaquoddy-Bay. **Stafford-Toronto**, J. Berlin, Mitt. D. Seefischereiver., **18**, 1902, (457-461).

*Neaera aegyptiaca*† n. sp. Blättermergel von Theben. **Oppenheim**, P. München, Sitzber. Ak. Wiss., math.-phys. Cl., **32**, (1902), 1903, (435-456).

*Panopaea*† nn. spp. **Sturm**, F. Berlin, Jahrb. geol. Landesant., **21**, 1901, Abh. Auss. st. Pers., (39-98).

*Pharella orientalis* Dunker, anatomy. **Bloomer**, H. H. J. Malac., London, **10**, 1903, (114-121, pl. X).

*Solecurtus*, anatomy of certain species. Bloomer, H. H. J. Malac., London, 10, 1903, (31-40, pl. II).

*Solen* (Linné), classification of British species. Bloomer, H. H. l.c. (41-43).

*Solenomorpha* n. gen., *S. major* n. sp. Lancashire. Hind, W. London, Q. J. Geol. Soc., 59, 1903, (334, with fig.).

*Tagelus rufus* Spengler, anatomy. Bloomer, H. H. J. Malac., London, 10, 1903, (114-121, pl. X).

### Pholadacea.

*Teredo navalis* L. Beitrag zur Kenntnis [des Baues] des Schiffsbohrwurmes. (Holländisch) Keer, P. M. Leiden (P.W.M. Trap), 1903, (58, mit 4 Taf.).

*Xylophaga praestans* n. sp. Northumberland. Smith, E. A. London, Proc. Malac. Soc., 5, 1903, (328-330, with figs.).

### Anatinacea.

*Anatina*† nn. spp. Buda limestone, Texas. Shattuck, G. B. Washington, D.C., Bull. Dept. Int. U.S., Geol. Surv., No. 205, 1903, (9-36, with pl.).

*Buchiola retrostriata* v. Buch mut. *pygmaea*† n. mut. Loomis, F. B. Albany, Univ., N.Y., Bull. St. Mus., No. 69, 1903, (892-920).

———— *semiimpressa*† n. sp. Deutschland oberdevonisch. Drevermann, F. Berlin, Jahrb. geol. Landesant., 21, 1901, Abh. auss. st. Pers., (99-207).

*Cardiola pectinata*† n. sp. Unterdevon, Marburg a. L. Walther, K. N. Jahrb. Min., Stuttgart, Beilagebd, 17, 1903, (1-75).

*Ceromya isocardioides*† n. sp. Sturm, F. Berlin, Jahrb. geol. Landesant., 21, 1901, Abh. auss. st. Pers., (39-98).

*Cyathodonta*† nn. spp. Tertiary, Florida. Dall, W. H. Philadelphia, Pa., Trans. Wagner Free Inst. Sci., 3, 1903, (i-xiv + 1219-1654).

*Goniomya*† nn. spp. Sturm, F. Berlin, Jahrb. geol. Landesant., 21, 1901, Abh. auss. st. Pers., (39-98).

*Grammysia constricta* Hall mut. *pygmaea*† n. mut. Loomis, F. B. Albany, Univ., N.Y., Bull. St. Mus., No. 69, 1903, (892-920).

*Homomya*† nn. spp. Buda limestone, Texas. Shattuck, G. B. Washington, D.C., Bull. Dept. Int., U.S., Geol. Surv., No. 205, 1903, (9-36, with pl.).

*Lyonsia acuta*† n. sp. Tertiary, Florida. Dall, W. H. Philadelphia, Pa., Trans. Wagner Free Inst. Sci., 3, 1903, (i-xiv + 1219-1654).

*Pandora* (Kennerleyia)† nn. spp. Tertiary, Florida. Dall, W. H. l.c. (i-xiv + 1219-1654).

———— (*Kennerleyia*) *grandis*†. Neocene. Rivers, J. J. Los Angeles, Bull., So. Cal. Acad. Sci., 1, 1902, (69).

*Pholadomya roemerii*† n. sp. Buda limestone, Texas. Shattuck, G. B. Washington, D.C., Bull. Dept. Int., U.S., Geol. Surv., No. 205, 1903, (9-36).

*Prothyris truncata*† n. sp. Devonian, New York. Cleland, H. F. Washington, D.C., U.S. Dept. Int. Bull. Geol. Surv., No. 206, 1903, (112, with pl.).

### SEPTIBRANCHIATA.

*Cuspidaria*† nn. spp. Tertiary, Florida. Dall, W. H. Philadelphia, Pa., Trans. Wagner Free Inst. Sci., 3, 1903, (i-xiv + 1219-1654).

*Poromya jamaicensis*† n. sp. Tertiary, Florida. Dall, W. H. l.c. (i-xiv + 1219-1654).

*Spheniopsis americana*† n. sp. Tertiary, Florida. Dall, W. H. l.c. (i-xiv + 1219-1654).

*Verticordia*† nn. spp. Tertiary, Florida. Dall, W. H. l.c. (i-xiv + 1219-1654).

### SCAPHOPODA.

*Dentalium*† nn. spp. Casey, T. L. Philadelphia, Pa. Proc. Acad. Nat. Sci., 55, 1903, (261-283).

———— nn. spp. Hedley, C. Port Kembla, Cape Three Points, N.S.W. Sydney, N.S.W., Mem. Austr. Mus., 4, pt. 6, 1903, (327, 328, figs. 61-62).

*Dentalium*† un. spp. S. Africa.  
**Sowerby**, G. B. Cape Town, Marin.  
 Invest., 2, 1903, (224, 225, pl. V, figs.  
 10-12).

— *regulare* n. sp. S. Africa.  
**Smith**, E. A. London, Proc. Malac.  
 Soc., 5, 1903, (393, pl. XV, fig. 2).

*Tonicia arnheimi* n. sp. Galapagos  
 Islands. **Dall**, W. H. Nautilus, Boston,  
 Mass., 17, 1903, (37-38).

— *pectinoides* n. sp. **Sykes**,  
 E. R. In: Herdman, Report . . .  
 Pearl Oyster Fisheries. Part I. Suppl.  
 Rep. IV. London, 1903, (179-180).

## AMPHINEURA.

### POLYPLACOPHORA.

#### GENERAL.

**[Ilseby]**, H. A. Notes on Polyplacophora of the Conchylien cabinet [by S. Clessin]. Nautilus, Boston, Mass., 17, 1903, (58-59).

**Sykes**, E. R. On the Polyplacophora, in Herdman, Report . . . Pearl Oyster Fisheries of the Gulf of Manaar. Part I. Suppl. Rep. IV. London, 1903, (177-180, with 1 pl.). 4to.

#### SPECIAL.

*Acanthopleura granulata*, habits.  
**Hamilton**, S. H. Nautilus, Philadelphia, Pa., 16, 1903, (138).

*Callochiton sublaevis* n. sp. **Sykes**,  
 E. R. In: Herdman, Report . . .  
 Pearl Oyster Fisheries. Part I. Suppl.  
 Rep. IV. London, 1903, (177).

*Chiton*, subradular organ. **Heath**,  
 H. Anat. Anz., Jena, 23, 1903,  
 (92-95).

— (*Hanleya*) *sykesi* n. sp.  
 S. Africa. **Sowerby**, G. B. Cape Town,  
 Marin. Invest., 2, 1903, (225, pl. V,  
 fig. 13).

*Cryptoplax larvaeformis*, Anatomie.  
**Wettstein**, E. Jenaische Zs. Natw.,  
 38, 1903, (473-504, mit 3 Taf.).

*Ischnochiton* nn. spp. **Smith**, E. A.  
 Fauna Mald. Laccad. Arch., II, (618-  
 619).

— nn. spp. **Sykes**, E. R.  
 In: Herdman, Report . . . Pearl  
 Oyster Fisheries, Part I. Suppl.  
 Rep. IV. London, 1903, (178).

— *bicreatus* n. sp. Cali-  
 fornia. **Dall**, W. H. Washington, D.C.,  
 Proc. Biol. Soc., 16, 1903, (176).

## APLACOPHORA.

#### GENERAL.

**Nierstrasz**, H. F. Das Herz der  
 Solenogastren. Amsterdam, Verh. K.  
 Akad. Wet., 2e Sect., 10, No 2, [1903],  
 (52, mit 3 Taf.).

**Simroth**, H. [Kritisches Referat  
 über] Thiele, Joh. Die systemat.  
 Stellung der Solenogastren u. die  
 Phylogenie der Mollusken. Zool. Centralbl., Leipzig, 10, 1903, (844-863).

#### SPECIAL.

*Chaetoderma* nn. spp. **Nierstrasz**,  
 H. F. Zool. Jahrb., Jena Abt. f. Anat.,  
 18, 1903, (359-386).

*Kruppomenia* n. gen., *K. minima*  
 n. sp. Mediterranean. **Nierstrasz**, in  
**Lo Bianco**, S. Mitt. zool. Stat. Neapel,  
 Berlin, 16, 1903, (249).

*Neomenia carinata* (?) **Tullberg**.  
**Brady**, G. S. Newcastle, Trans. Nat.  
 Hist. Soc., 14, 1903, (102).

*Proneomenia amboinensis* n. sp.  
**Thiele**, J. Jena, Denkschr. med. Ges.,  
 8, 1903, (733-737, mit 1 Taf.).

*Pruvotina* n. nom. = *Paramenia Pruvot*  
 not Bauer and Bergenstamm. **Cockerell**,  
 T. D. A. Nautilus, Boston, Mass., 16,  
 1903, (118).

*Uncinemia* n. gen., *U. neapolitana*  
 n. sp. **Nierstrasz**, H. F. Zool. Jahrb.  
 Jena, Abt. f. Anat., 18, 1903, (376).

## GASTROPODA.

#### GENERAL.

Illustrations of some Japanese land  
 shells. Nautilus, Philadelphia, Pa., 16,  
 1903, (136-137, with pl.); [Errata] *ib.*  
 17, 1903, (12).

**Blanford**, W. T. Notes on Mr. W.  
 M. Daly's collections of land and fresh-  
 water Mollusca from Siam. London,

Proc. Malac. Soc., 5, 1903, (275-283, pl. VIII).

**Dall, W. H.** Diagnoses of new species of mollusks from the Santa Barbara Channel, California. Washington, D.C., Proc. Biol. Soc., 16, 1903, (171-176). Separate. 23.3 cm.

**Germain, L.** Etude sur les mollusques terrestres et fluviatiles vivants des environs d'Angers et du département de Maine-et-Loire. Nantes, Bul. soc. sci. nat., (ser. 2, 3), 13, 1903, (1-112).

**Hedley, C.** Mollusca. Part II. Scaphopoda and Gastropoda. Scientific Results of the trawling expedition of H.M.C.S. "Thetis" off the coast of New South Wales in February and March, 1893. Sydney, N.S.W., Mem. Austr. Mus., 4, 1903, (327-402, with 3 pls. and 53 text-figs.).

**Hirase, Y.** Catalogue of land shells of Japan to be had of Y. Hirase. Shimochoja-Machi, Karasumaru, Kyoto, Japan, 1903, ([1]-24, with pl.). [With Nautilus, Philadelphia Pa., 16, 1903].

**Madoulé, A.** Double observation sur le mode de distribution des mollusques terrestres, vivant soit en colonies, soit plus ou moins isolément. Elbeuf, Bul. soc. étud. sci. nat., 21, (1902), 1903, (46-49).

**Martens, E. von.** Griechische Mollusken, gesammelt von Eberh. von Oertzen. Arch. Natg., Berlin, 69, Bd 1, 1903, (372-374).

Die Meeres-Conchylien der Cocos-Insel. Berlin, SitzBer. Ges. natf. Freunde, 1902, (137-141, 253).

Land- und Süßwasser-Conchylien von Ost-Borneo. Lc. 1903, (416-428).

von und **Thiele, J.** Die beschalten Gastropoden der deutschen Tiefsee-Expedition 1898-1899. A. Systematisch-geographischer Teil von Martens. B. Anatomisch-systematische Untersuchungen einiger Gastropoden. von Joh. Thiele. (Wissenschaftliche Ergebnisse der deutschen Tiefsee-Expedition. Bd 7, Lfg 1. Jena, 1903, (1-146, mit 5 Taf.; 147-180, mit 4 Taf.).

**Pilsbry, H. A.** Land shells of Curacao. Nautilus, Boston, Mass., 17, 1903, (48).

Zweiter Beitrag zur Binnenconchylienfauna des Miocäns von

Oppeln in Schlesien. [Von Prof. Dr. A. Andreæ]. Lc. (59-60).

**Rossmässler, E. A.** Iconographie der Land- und Süßwasser-Mollusken mit vorzüglicher Berücksichtigung der europäischen noch nicht abgebildeten Arten. Fortges. v. W[ilhelm] Kobelt. N.F. Bd 9. Lfg 3/4. 5/6 [Schluss des Bandes]. Color. u. schwarze Ausg. Wiesbaden (C. W. Kreidel), 1901, 1902, (25-86, mit 20 Taf.). Die Lfg. der color. Ausg. 8 M., der schwarz. Ausg. 4.60 M. Bd. 10, Lfg 1. 2. Ib., 1903, (1-32, mit 10 Taf.). Je 8 bzw. 4.60 M.

**Sardeson, F. W.** The phylogenic stage of the Cambrian Gastropoda. Chicago, Ill., J. Geol. Univ. Chic., 11, 1903, (169-492, with 2 pls.).

**Sykes, E. R.** Notes on, with illustrations of, Austro-Malayan land shells. J. Malac., London, 10, 1903, (78, pl. VI.).

## PROSOBRANCHIATA.

**Sykes, E. R.** On the land operculate Mollusca collected during the "Skeat Expedition" to the Malay Peninsula in 1899-1900. London, Proc. Zool. Soc., 1903, 1, (194-199, pl. XX).

## DOCOGLOSSA.

### Patellidae.

*Patella*, the common limpet. **Davis, J. R. A.** and **Fleure, H. J. L. M. B. C.** Memoirs on typical British marine plants and animals. London, 1903, (84, with 4 pls.).

\_\_\_\_\_ *hepatica* n. nom. for *Acinaea striata* Pilsbry nec Quoy & Gaimard. **Pritchard and Gatliff.** Melbourne, Proc. R. Soc. Vict., 15, (N. Ser.), 1903, (192-194).

\_\_\_\_\_ *kermaecdensi* Pilsbry, systematic position. **Suter, H. J.** Malac., London, 9, 1902, [1903], (111, with pl.).

## RHIPIDOGLOSSA.

### Fissurellidae.

*Emarginula* nn. spp. Gulf of Oman. **Melville, J. B.** and **Standen, R.** Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (290-291, pl. XX).

*Puncturella* (*Cranopsis*) nn. spp.  
Tiefsee-Expedition. **Martens**, E. von.  
Berlin, SitzBer. Ges. natf. Freunde,  
1902, (237-244).

### Pleurotomariidae.

*Eotomaria* † nn. spp. Upper Silurian,  
New York. **Clarke**, J. M. and **Ruedemann**, R. Albany Univ., N.Y., Mem.  
St. Mus., No. 5, 1903, (195).

*Homotoma whiteavesi* † n. sp. Upper  
Silurian, New York. **Clarke**, J. M. and  
**Ruedemann**, R. l.c. (195).

*Pleurotomaria beyrichi*, Handelswerth  
und Grad der augenblicklichen  
Seltenheit. **Cort**, H. de. Uebers. aus  
Bull. soc. r. malacol. d. Belg. 2. III.  
01 . . . v. D. F. Heynemann.  
Frankfurt a. M., NachrBl. D. malakozool.  
Ges., 35, 1903, (14-16).

— *capillaria* Conrad mut.  
*pygmaea* † n. mut., *P. itys* Hall mut.  
*pygmaea* † n. mut. **Loomis**, F. B.  
Albany Univ., N.Y., Bull. St. Mus., No.  
69, 1903, (892-920).

— *hirasei* n. sp. Japan.  
**Pilsbry**, H. A. Philadelphia, Pa., Proc.  
Acad. Nat. Sci., 55, 1903, (496);  
Nautilus, Boston, Mass., 17, 1903, (36).

— *lőczyi* † n. sp. Ostasien.  
**Schellwien**, E. In: K. Futterer, Durch  
Asien, Bd 3, 1903, (125-174).

— *stantoni* † n. sp. Buda  
limestone, Texas. **Shattuck**, G. B.  
Washington, D.C., Bull. Dept. Int., U. S.  
Geol. Surv., No. 205, 1903, (9-36, with  
pl.).

— *thebensis* † n. sp. Blätter-  
mergel von Theben. **Oppenheim**, P.  
München, SitzBer. Ak. Wiss., math.-  
phys. Cl., 32, (1902), 1903, (435-456).

*Scissurella aetheria* n. sp. Gulf of  
Oman. **Melville**, J. C. and **Standen**, R.  
Ann. Mag. Nat. Hist., London, (Ser. 7),  
12, 1903, (300-301, pl. XXI).

— *australis* n. sp. Port  
Kembla, N.S.W. **Hedley**, C. Sydney,  
N.S.W., Mem. Austr. Mus., 4, pt. 6,  
1903, (329, fig. 63).

— *dalli* n. sp. Patagonia.  
**Bartsch**, P. Nautilus, Boston, Mass.,  
17, 1903, (90-91).

### Bellerophonidae.

*Bellerophon* (*Bucania*?) *sphaericus* †  
n. sp. Unterdevon, Marburg. **Waither**,  
K. N. Jahrb. Min., Stuttgart, Beilagebd.  
17, 1903, (2-75).

— *shelbiensis* † n. sp. Upper  
Silurian, New York. **Clarke**, J. M. and  
**Ruedemann**, R. Albany Univ., N.Y.,  
Mem. St. Mus., No. 5, 1903, (195).

### Cocculinidae.

*Cocculina* nn. spp. **Thiele**, J. in  
**Martens**, E. von. Wissenschaftliche  
Ergebnisse der deutschen Tiefsee-  
Expedition. Bd 7, Lfg 1, Jena, 1903,  
(128-129).

— *meridionalis* n. sp. Port  
Kembla, N.S.W. **Hedley**, C. Sydney,  
N.S.W., Mem. Austr. Mus., 4, pt. 6, 1903,  
(331, fig. 64).

### Stomatellidae.

*Stomatella exquiseita* n. sp. **Sowerby**,  
G. B. J. Malac., London, 10, 1903, (76-  
77, pl. V, fig. 4).

### Cyclostrematidae.

*Cyclostrema* nn. spp. Persian Gulf.  
**Melville**, J. C. and **Standen**, R. Ann.  
Mag. Nat. Hist., London, (Ser. 7), 12,  
1903, (291-293, pl. XX).

— (*Tubicola*) *semisculptum*  
n. sp. **Martens**, E. von. Wissenschaft-  
liche Ergebnisse der deutschen Tiefsee-  
Exhibition. Bd 7, Lfg 1, Jena, 1903,  
(49).

### Liottidae.

*Delphinoidea coronadensis* † n. sp.  
**Arnold**, R. [Reprinted from San Fran-  
cisco, Mem. Cal. Acad. Sci., 3.] in  
Stanford University, Cal., Leland Stan-  
ford Jr. Univ., Hopkins Seaside Lab.,  
Cont. Biol., No. 31, 1903, (1-420).

*Liottia* nn. spp. Persian Gulf. **Mel-  
ville**, J. C. and **Standen**, R. Ann. Mag.  
Nat. Hist., London, (Ser. 7), 12, 1903,  
(293-294, pl. XX).

— *bicarinata* n. sp. **Martens**,  
E. von. Wissenschaftliche Ergebnisse  
der deutschen Tiefsee-Expedition. Bd  
7, Lfg 1, Jena, 1903, (46).

*Liotia disjuncta* n. sp. Cape Three Points, N.S.W. **Hedley**, C. Sydney, N.S.W., Mem. Austr. Mus., 4, pt. 6, 1903, (337, fig. 66).

———— *squamicosata* n. sp. **Smith**, E. A. Fauna Mald. Laccad. Arch., II, (617).

### Trochidae.

*Calliostoma* nn. spp. S. Africa. **Sowerby**, G. B. Cape Town, Marin. Invest., 2, 1903, (222, 223, pl. V, figs. 3, 4, 7).

———— *thrincoma* n. sp. Persian Gulf. **Melville**, J. C. and **Standen**, R. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (296, pl. XX).

*Clanculus gemmifer* var. *pallidus* n. var. Japan. **Pilsbry**, H. A. Nautilus, Boston, Mass., 17, 1903, (69-71).

———— *miztus* n. sp. Cape Colony. **Smith**, E. A. London, Proc. Malac. Soc., 5, 1903, (389, pl. XV, fig. 7).

*Enida persica* n. sp. Gulf of Oman. **Melville**, J. C. and **Standen**, R. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (294, pl. XX).

*Ethalia floccata* n. sp. Japan. **Sowerby**, G. B. l.c. (500).

———— *rhodomphala* n. sp. **Smith**, E. A. Fauna Mald. Laccad. Arch., II, (618).

*Euchelus townsendianus* n. sp. Persian Gulf. **Melville**, J. C. and **Standen**, R. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (295, pl. XX).

*Gibbula* nn. spp. et n. var. Japan. **Pilsbry**, H. A. Nautilus, Boston, Mass., 17, 1903, (69-71).

*Margarita*† nn. varr. **Arnold**, R. [Reprinted from San Francisco, Mem. Cal. Acad. Sci., 3.] in Stanford University, Cal., Leland Stanford Jr. Univ., Hopkins Seaside Lab., Cont. Biol., No. 31, 1903, (332, 333).

*Minolia arata* n. sp. Botany Bay, N.S.W. **Hedley**, C. Sydney, N.S.W., Mem. Austr. Mus., 4, pt. 6, 1903, (333, fig. 65).

———— (*Nachaeroplax*) *congener* n. sp. S. Africa. **Sowerby**, G. B. Cape Town, Marin. Invest., 2, 1903, (223, pl. V, fig. 2); *M. laevis* **Martens**. Figured, ib., (231, pl. V, fig. 2).

*Minolia ornata* n. sp. Japan. **Sowerby**, G. B. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (499-500).

*Monilea (Rossiteria) nucleolus* n. sp. Japan. **Pilsbry**, H. A. Nautilus, Boston, Mass., 17, 1903, (69-71).

*Solariella* nn. spp. Tiefsee-Expedition. **Martens**, E. von. Berlin, SitzBer. Ges. natf. Freunde, 1902, (237-244).

———— *persculpta* n. sp. S. Africa. **Sowerby**, G. B. Cape Town, Marin. Invest., 2, 1903, (233, pl. V, fig. 8).

———— *sacalles* n. sp. Persian Gulf. **Melville**, J. C. and **Standen**, R. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (295-296, pl. XX).

*Stylobates* n. gen., *S. aeneus* n. sp. Hawaii. **Dall**, W. H. Nautilus, Boston, Mass., 17, 1903, (61-62).

*Thalotia malditensis* n. sp. **Smith**, E. A. Fauna Mald. Laccad. Arch., II, (617).

### Turbinidae.

*Astridium (Cyclocantha) gilchristi* n. sp. S. Africa; *A. andersoni* **Smith**, figured. **Sowerby**, G. B. Cape Town, Marin. Invest., 2, 1903, (221, 230, pl. IV, fig. 6, pl. V, fig. 5).

*Collonia bicarinata* n. sp. Tiefsee-Expedition. **Martens**, E. von. Berlin, SitzBer. Ges. natf. Freunde, 1902, (237-244).

*Leptothyra rubens* n. sp. Gulf of Oman. **Melville**, J. C. and **Standen**, R. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (296, pl. XX).

*Phasianella tristis* n. sp. Japan. **Pilsbry**, H. A. Nautilus, Boston, Mass., 17, 1903, (69).

*Poleumita*† n. nom. = *Polytropis* de Koninck not. Scandberger; *P. scamnata*† n. sp. Upper Silurian, New York. **Clarke**, J. M. and **Buedemann**, R. Albany Univ., N.Y., Mem. St. Mus., No. 5, 1903, (195).

### Neritidae.

*Nerita proxima* n. sp. Japan. **Sowerby**, G. B. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (498-499).

*Neritina fluviatilis*, systèmes nerveux, circulaire, respiratoire, et excréteur. **Lenzen**, J. Cellule, Louvain, **20**, 1903, (287-333).

———— *gratouloupiana* † (hitherto misidentified as *N. fluviatilis*). Pleistocene gravels of the Thames at Swanscomb. **Kennard**, A. S. and **Woodward**, B. B. London, Proc. Malac. Soc., **5**, 1903, (320-321).

———— *subocellata* (Marts.) Schepm. **Schepman**, M. M. Frankfurt a. M., NachrBl. D. malakozool. Ges., **35**, 1903, (20-22).

*Theodoxia fluviatilis*, curieuse station. **Giard**. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (223).

### Helicinidae.

*Helicina gemma* n. sp. Costa Rica. **Preston**, H. B. J. Malac., London, **10**, 1903, (4, with fig.).

———— *varians* n. sp. Santa Cruz Islands. **Sykes**, E. R. l.c. (67)

### PTENOGLLOSSA.

#### Ianthinidae.

*Ianthina auriculata* n. sp. **Martens**, E. von. Wissenschaftliche Ergebnisse der deutschen Tiefsee-Expedition. Bd 7, Lfg 1, Jena, 1903, (142).

#### Scalaridae.

*Actis bitaeniata* n. sp. Japan. **Sowerby**, P. B. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (498).

*Crossea carinata* n. sp. Port Kembla, N.S.W. **Hedley**, C. Sydney, N.S.W., Mem. Austr. Mus., **4**, pt. 6, 1903, (345, fig. 71).

*Scala* (Klein) **Humphrey**, representatives in the Persian Gulf, Gulf of Oman, and North Arabian Sea, with descriptions of new species. **Melville**, J. C. and **Standen**, R. J. Conch., Leeds, **10**, 1903, (340-351, pl. VII).

*Scala* (*Cirsotrema*) *texia* n. sp. **Smith**, E. A. Fauna Mald. Laccad. Arch., **II**, (616).

———— (*Consantia*) *intertexta* n. sp. Gulf of Oman. **Melville**, J. C. and **Standen**, R. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (305-306, pl. XXII).

———— *saxinae* n. sp. California. **Dall**, W. H. Washington, D.C., Proc. Biol. Soc., **16**, 1903, (175).

———— *tenebrosa* n. sp. S. Africa. **Sowerby**, G. B. Cape Town, Marin. Invest., **2**, 1903, (220, pl. IV, fig. 6).

*Scaloria cuscupata* n. sp. Japan. **Sowerby**, G. B. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (497-498).

———— *inscripta* n. sp. **Martens**, E. von. Wissenschaftliche Ergebnisse der deutschen Tiefsee-Expedition. Bd 7, Lfg 1, Jena, 1903, (69).

———— *unilateralis* n. sp. Tiefsee-Expedition. **Martens**, E. von. Berlin, SitzBer. Ges. natf. Freunde, **1902**, (237-244).

### TAENIOGLOSSA.

#### Naticidae.

*Lunatia draconis* n. sp. California. **Dall**, W. H. Washington, D.C., Proc. Biol. Soc., **16**, 1903, (171-176).

*Macromphalina californica* n. sp. California. **Dall**, W. H. l.c. (175).

*Natica* nn. spp. **Martens**, E. von. Wissenschaftliche Ergebnisse der deutschen Tiefsee-Exhibition. Bd 7, Lfg 1, Jena, 1903, (64, 113).

———— (*Polinices*) *burnupi* n. sp. Durban Bay. **Smith**, E. A. London, Proc. Malac. Soc., **5**, 1903, (385, pl. XV, fig. 11).

———— (*Amauropsis*) *goleana* n. sp. **Dacq**, E. Palaeontographica, Stuttgart, **30**, 11, 1903, (337-339, 3 Taf.).

———— *sudetica* † n. sp. **Sturm**, F. Berlin, Jahrb. geol. Landesant., **21**, 1901, Abh. auss. St. Pers., (39-98).

*Signoretus noyesii* n. sp. Colombia. **Dall**, W. H. Nautilus, Boston, Mass., **17**, 1903, (37-38).

**Lamellaridae.**

*Echinochama compressa* n. sp. Mediterranean. **Lo Bianco**, S. Mitt. zool. Stat. Neapel, Berlin, **16**, 1903, (109-279).

**Trichotropidae.**

*Trichotropis pulcherrima* n. sp. Gulf of Oman. **Melville**, J. C. and **Standen**, R. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (296-297, pl. XX).

**Capulidae.**

*Crepidula*, embryology. **Conklin**, E. G. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **2**, 1901, (257-265, with text-fig.); [reprint] Philadelphia, Cont. Zool. Lab., Univ. Pa., **1901**, 1902, (257-265, with text fig.).

——— phenomena of fertilization. **Conklin**, E. G. Philadelphia, Cont. Zool. Lab., Univ. Pa., **1901**, 1902, ([280]-287, with text fig.).

**Solaridae.**

*Euomphalus fairchildi* n. sp. Upper Silurian, New York. **Clarke**, J. M. and **Ruedemann**, R. Albany Univ., N.Y., Mem. St. Mus., No. **5**, 1903, (195).

——— *varicosus* n. sp. Deutschland, oberdevonisch. **Drevermann**, F. Berlin, Jahrb. geol. Landesant., **21**, 1901, Abh. auss. St. Pers., (96-207).

*Fluzina dalliana* n. sp. Gulf of Oman. **Melville**, J. C. and **Standen**, R. Ann. Mag. Nat. Hist., London (Ser. 7), **12**, 1903, (298, pl. XXI).

*Homalaxis* nn. spp. Gulf of Oman. **Melville**, J. C. and **Standen**, R. l.c. (298-300, pl. XXI).

——— *meridionalis* n. sp. Cape Three Points, N.S.W. **Hedley**, C. Sydney, N.S.W., Mem. Austr. Mus., **4**, pt. 6, 1903, (351, fig. 74).

*Solarium* nn. spp. Persian Gulf. **Melville**, J. C. and **Standen**, R. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (297, pl. XX, XXI).

——— (*Torinia*) *admirandum* n. sp. Gulf of Oman. **Melville**, J. C. and **Standen**, R. l.c. (322).

——— *supratriatum* n. sp. **Martens**, E. von. Wissenschaftliche (N 2-9053)

Ergebnisse der deutschen Tiefsee-Expedition. Bd 7, I, fig. 1. Jena, 1903, (118).

**Littorinidae.**

## GENERAL.

**Kesteven**, H. L. Notes on Prosobranchiata. No. ii.—Littorinacea. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, **27**, (1902), 1903, (620-636, with 1 pl.).

## SPECIAL.

*Littorina litorea*, general variation. **Bigelow**, R. P. and **Rathbun**, P. Amer. Nat., Boston, Mass., **37**, 1903, (171-184).

**Fossaridae.**

*Fossarus* (*Couthouyia*) *unicarinalis* n. sp. Arabian Sea. **Melville**, J. C. and **Standen**, R. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (301, pl. XXI).

**Cyclophoridae.**

*Arimia japonica* n. sp. Japan. **Pilsbry**, H. A. and **Hirase**, Y. Nautilus, Philadelphia, Pa., **16**, 1903, (136).

*Cataulus*, preliminary note on the anatomy of the genus. **Digby**, L. London, Proc. Malac. Soc., **5**, 1903, (261).

——— note on the name. **Sykes**, E. R. J. Malac., London, **10**, 1903, (2-3).

——— *connectens* n. sp., *C. greeni* var. *robusta* n. var. Ceylon. **Fulton**, H. l.c. (102, pl. IX, fig. 1, 4).

*Chondrocyclus exsertus* n. sp. Natal. **Melville** and **Ponsonby**. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (608-609).

*Coptocheilus perakensis* n. sp. Malay Peninsula. **Fulton**, H. J. Malac., London, **10**, 1903, (102, pl. IX, fig. 3).

*Cyathopoma* nn. spp. Ceylon and India. **Freston**, H. B. London, Proc. Malac. Soc., **5**, 1903, (340, with figs.).

*Cyclotus* nn. spp. Ost-Borneo. **Martens**, E. von. Berlin, SitzBer. Ges. natif. Freunde, **1903**, (416-428).



*Diplommatina* nn. spp. Malay Peninsula. **Sykes**, E. R. London, Proc. Zool. Soc., **1903**, 1, (198-199, pl. XX, figs. 3, 16).

— *balansai* nn. var. et nn. spp. Indo-Chine. **Bavay et Dautzenberg**, J. conchyliol., Paris, **51**, 1903, (201-236).

*Dutropis cisternae* n. sp. Malay Peninsula. **Sykes**, E. R. London, Proc. Zool. Soc., **1903**, 1, (195, pl. XX, figs. 17-19).

*Helicomorpha scalaroides* n. sp. Indo-Chine. **Bavay et Dautzenberg**, P. J. conchyliol., Paris, **51**, 1903, (201-236).

*Japonia sadoensis* n. sp. Japan. **Pilsbry**, H. A. and **Hirase**, Y. Nautilus, Boston, Mass., **17**, 1903, (31-32).

*Lagochilus kobelti* n. sp. Malay Peninsula. **Sykes**, E. R. London, Proc. Zool. Soc., **1903**, 1, (194-195, pl. XX, figs. 13-15).

*Leptopoma* nn. spp. Moluques. **Dautzenberg**, P. Naturaliste, Paris, (ser. 2), **24**, 1902, (247-248).

— nn. spp. **Dautzenberg**, P. J. conchyliol., Paris, **51**, 1903, (5-20, av. 1 pl. et fig.)

— nn. spp. Sumba Island and Flores. **Fulton**, H. J. Malac., London, **10**, 1903, (101, pl. IX, figs. 5 and 7).

— nn. spp. Waigiou. **Sykes**, E. R. l.c. (66).

*Opisthostoma amandalei* n. sp. Malay Peninsula. **Sykes**, E. R. London, Proc. Zool. Soc., **1903**, 1, (198, pl. XX, figs. 4 and 5).

*Palaina ponsonbyi* n. sp. Waigiou. **Sykes**, E. R. J. Malac., London, **10**, 1903, (66-67).

*Platyrhaphe catheleti* n. sp. Indo-Chine. **Bavay**, A. et **Dautzenberg**, P. J. conchyliol., Paris, **51**, 1903, (201-236).

*Pterocyclos subalatus* n. sp. Malay Peninsula. **Sykes**, E. R. London, Proc. Zool. Soc., **1903**, 1, (195-196, pl. XX, figs. 1, 2).

*Pupina brachysoma* n. sp. Indo-Chine. **Bavay**, A. et **Dautzenberg**, P. J. conchyliol., Paris, **51**, 1903, (201-236).

*Rhaphaulus ascendens* n. sp., *R. perpensis* Smith var. *jalorensis* n. var.

Malay Peninsula. **Sykes**, E. R. London, Proc. Zool. Soc., **1903**, 1, (196, pl. XX, figs. 9-12).

— *Rhiostoma* sp., *R. jalorensis* n. sp. Malay Peninsula. **Sykes**, E. R. l.c. (196, pl. XX, figs. 6-8).

### Cyclostomatidae.

*Colobostylus nuttii* n. sp. Jamaica. **Pilsbry**, H. A. Nautilus, Boston, Mass., **17**, 1903, (65-66).

*Omphalotropis waigiouensis* n. sp. Waigiou. **Sykes**, E. R. J. Malac., London, **10**, 1903, (67).

*Otopoma clausum* Sby., *O. yemenicum* Brgt. **Sykes**, E. R. London, Proc. Malac. Soc., **5**, 1903, (339).

*Tropidophora* nn. spp. Madagascar and Cape Colony. **Fulton**, H. J. Malac., London, **10**, 1903, (102-103, pl. IX, figs. 8a, b, 11).

— *comburens* n. sp. Zululand. **Melville**, J. C. and **Ponsonby**, J. H. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (608).

### Rissoidae.

*Epigrius* n. gen., type *Rissoa ischna* Tate. **Hedley**, C. Sydney, N.S.W., Mem. Austr. Mus., **4**, pt. 6, 1903, (355).

*Rissoa parva* Da Costa, note on a monstrosity. **Sykes**, E. R. London, Proc. Malac. Soc., **5**, 1903, (260).

*Rissoina* nn. spp. Gulf of Oman. **Melville**, J. C. and **Standen**, R. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (302-303, pl. XXI).

*Seroba pyramidatus* n. sp. Wata Mooli, N.S.W. **Hedley**, C. Sydney, N.S.W., Mem. Austr. Mus., **4**, pt. 6, 1903, (354, fig. 77).

### Hydrobiidae.

*Bythinella padiraei* n. sp. **Locard**, A. Bul. Muséum, Paris, **1902**, (608-611, av. fig.).

*Lartetia umbilicata* n. sp. **Locard**, A. Nîmes, Bul. soc. étud. sc. nat., (n. sér.), **29**, 1901, [1902], (10-13).

— *virei* n. sp. **Locard**, A. Bul. Muséum, Paris, **1902**, (608-611, av. fig.).

*Pseudamnicola prasina* n. sp. **Rosen**, O. Baron von. Frankfurt a. M., Nachr. Bl. D. malakozool. Ges., **35**, 1903, (178-182).

### Assimineidae.

*Assiminea pagodellella* n. sp. Australia. **Hedley**, C. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, **27**, 1903, (603, pl. XXIX, fig. 6).

### Adeorbidae.

*Adeorbis aziotimus* n. sp. Gulf of Oman. **Melville**, J. C. and **Stanton**, R. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (301, pl. XXI).

### Viviparidae.

*Campeloma harloutonensis* † n. sp. Montana, Cretaceous. **Stanton**, T. W. Philadelphia, Pa., Proc. Amer. Phil. Soc., **42**, 1903, (188-199).

*Paludestrina* † nn. spp. **Arnold**, R. [Reprinted from San Francisco, Mem. Cal. Acad. Sci., **3**], Stanford University, Cal., Leland Stanford Jr. Univ., Hopkins Seaside Lab., Cont. Biol., No. **31**, 1903, (1-420).

*Paludina*, wurmförmige Samenfäden. und ihre Entwicklung. **Meves**, F. Anat. Anz., Jena, **19**, ErgH., 1901, (23-37).

——— *rizipara*, die sog. wurmförmigen Samenfäden und über ihre Entwicklung. **Meves**, F. Kiel, Mitt. Ver. schlesw.-holst. Aerzte, (N.F.), **10**, 1901, (5-9, 36-39, 49-52).

——— development. **Drummond**, J. M. Q. J. Microsc. Sci., London, (Ser. 2), **46**, 1902, (97-143, with 3 pls.).

*Viviparus montanaensis* † n. sp. Montana, Cretaceous. **Stanton**, T. W. Philadelphia, Pa., Proc. Amer. Phil. Soc., **42**, 1903, (188-199).

### Ampullariidae.

*Ampullaria dalyi* n. sp. Siam. **Blanford**, W. T. London, Proc. Malac. Soc., **5**, 1903, (281-282, pl. VIII, fig. 1).

——— *globosa* Swains., respiratory and locomotory habits. **Ramanan**, V. V. J. Malac., London, **10**, 1903, (107-113).

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### Valvatidae.

*Valvata stelleri* n. sp. Kamtschatka. **Dybovskij**, W. St. Petersburg, Ann. Mus. zool. Ac. Sc., **8**, 1903, (46).

### Cerithiidae.

*Bitium quadricinctum* n. sp. Durban. **Smith**, E. A. London, Proc. Malac. Soc., **5**, 1903, (381, pl. XV, fig. 12).

——— *williamsoni*\* † n. sp. **Arnold**, R. [Reprinted from San Francisco, Mem. Cal. Acad. Sci., **3**] in Stanford University, Cal., Leland Stanford Jr. Univ., Hopkins Seaside Lab., Cont. Biol., No. **31**, 1903, (295).

*Cerithium* (?) *texanum* † n. sp. Buda Limestone, Texas. **Shattuck**, G. B. Washington, D.C., Bull. Dept. Int., U. S. Geol. Surv., No. **205**, 1903, (9-36, with pl.).

——— *verecundum* n. sp. Gulf of Oman. **Melville**, J. C. and **Stanton**, R. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (300, pl. XXI).

——— *zebrum* var., nn. varr. **Vignal**, L. J. conchyliol., Paris, **51**, 1903, (21-27, av. fig. et pl.).

*Triforis* nn. spp. **Smith**, E. A. Fauna Mald. Laccad. Arch., **II**, (613-614).

——— *abnormalis* n. sp. Japan. **Sowerby**, G. B. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (498).

*Triphora* nn. spp. Australia. **Hedley**, C. Sydney, N.S.W., Proc. Linn. Soc., N. S. Wales, **27**, 1903, (608-618, pl. XXXII, figs. 21-27, pl. XXXIII, figs. 30-45).

### Melaniidae.

*Melania binodosa* n. sp. Siam. **Blanford**, W. T. London, Proc. Malac. Soc., **5**, 1903, (282-283, pl. VIII, fig. 2).

——— *liebrectsi* n. sp. Congo. **Dautzenberg**, P. Bruxelles, Bull. soc. roy. malac., **26**, 1903, (3-7).

*Melanopsis sikorai* Brus. var. *carinata* † n. var. **Kormos**, T. Földt. Közl., Budapest, **33**, 1903, (451-462, 496-506, mit Taf. XIII).

*Paludomus siamensis* n. sp. Siam. **Blanford**, W. T. London, Proc. Malac. Soc., **5**, 1903, (283, pl. VIII, fig. 3).

**Pleuroceridae.**

*Goniobasis*. **Billups**, A. C. *Nautilus*, Boston, Mass., **17**, 1903, (22-24).

———— **Hinkley**, A. A. *l.c.* (32-34).

———— ? *nn. spp.* Montana, Cretaceous. **Stanton**, T. W. Philadelphia, Pa., *Proc. Amer. Phil. Soc.*, **42**, 1903, (188-199).

**Turritellidae.**

*Mathilda carysia* n. sp. Persian Gulf. **Melville**, J. C. and **Standen**, R. *Ann. Mag. Nat. Hist.*, London, (Ser. 7), **13**, 1903, (321-322).

———— *decorata* n. sp. Port Kembla, N.S.W. **Hedley**, C. Sydney, N.S.W., *Mem. Austr. Mus.*, **4**, pt. 6, 1903, (352, fig. 75).

*Omphalius comptus* n. sp. Japan. **Sowerby**, G. B. *Ann. Mag. Nat. Hist.*, London, (Ser. 7), **13**, 1903, (499).

*Turritella budaensis* n. sp. Buda Limestone, Texas. **Shattuck**, G. B. Washington, D.C., *Bull. Dept. Int.*, U. S. Geol. Surv., No. **205**, 1903, (9-36, with pl.).

**Coecidae.**

*Caecum lilianum* n. sp. Australia. **Hedley**, C. Sydney, N.S.W., *Proc. Linn. Soc.*, N.S.W., **27**, (1902), 1903, (603, pl. XXIX, fig. 7).

**Vermetidae.**

*Vermetus waitei* n. sp. Port Kembla, N.S.W. **Hedley**, C. Sydney, N.S.W., *Mem. Austr. Mus.*, **4**, pt. 6, 1903, (346, fig. 72).

**Chenopodidae.**

*Aporrhais hirundo* n. sp. **Sturm**, F. Berlin, *Jahrber. geol. Landesant.*, **21**, 1901, *Abh. auss. St. Pers.*, (39-98).

**Cypraeidae.**

## GENERAL.

**Button**, F. I. West American *Cypraeidae*. *J. Conch.*, Leeds, **10**, 1903, (254-258).

**Dautzenberg**, P. Revision des *Cypraeidae* de la Nouvelle-Calédonie. *J. conchyliol.*, Paris, **50**, 1902, (291-384, av. 1 pl.).

## SPECIAL.

*Cypraea* *nn. spp. et monstr.* Nouvelle-Calédonie. **Dautzenberg**, P. *J. Conchyliol.*, Paris, **50**, 1902, (291-384, av. 1 pl.).

———— *asellus* var. *bitacniata* n. var. Nouvelle-Calédonie. **Geret**, P. *l.c.* **51**, 1903, (28).

———— *fultoni* n. sp. S. Africa. **Sowerby**, G. B. Cape Town, *Marin. Invest.*, **2**, 1903, (218, pl. IV, fig. 7).

*Erato recondita* n. sp., *E. recondita* var. *haplochila* n. var. Gulf of Oman. **Melville**, J. C. and **Standen**, R. *Ann. Mag. Nat. Hist.*, London, (Ser. 7), **13**, 1903, (302, pl. XXI).

*Pedicularia stylasteris* n. sp. Wolongong Coogee, N.S.W. **Hedley**, C. Sydney, N.S.W., *Mem. Austr. Mus.*, **4**, pt. 6, 1903, (342, figs. 69, 70).

*Trivia ritteri* n. sp. California. **Raymond**, W. J. *Nautilus*, Boston, Mass., **17**, 1903, (85-86).

**Cassididae.**

*Cassis microstoma* n. sp. **Martens**, E. von. *Wissenschaftliche Ergebnisse der deutschen Tiefsee-Expedition*. Bd 7, Lfg 1, Jena, 1903, (112).

**Tritonidae.**

## GENERAL.

**Dall**, W. H. Note on the family *Septidae*. *Nautilus*, Boston, Mass., **17**, 1903, (55-56).

## SPECIAL.

*Epidromus crebriliratus* n. sp. S. Africa. **Sowerby**, G. B. Cape Town, *Marin. Invest.*, **2**, 1903, (220, pl. IV, fig. 4).

*Lotorium pumilis* n. sp. Manning River, N.S.W. **Hedley**, C. Sydney, N.S.W., *Mem. Austr. Mus.*, **4**, pt. 6, 1903, (339, fig. 68).

## GYMNOGLOSSA.

## Pyramidellidae.

*Acteocopyramis* nn. spp. Persian Gulf. **Melville**, J. C. and **Standen**, R. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (305, pl. XXII).

*Eulimella carmanica* n. sp. Gulf of Oman. **Melville**, J. C. and **Standen**, R. l.c. (303-304, pl. XXI).

*Macrochilina hebe* Hall mut. *pygmaea*† n. mut. **Loomis**, F. B. Albany Univ., N.Y., Bull. St. Mus., No. 69, 1903, (892-920).

*Mormula persarum* n. sp. Persian Gulf. **Melville**, J. C. and **Standen**, R. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (304, pl. XXII).

*Myza* n. gen., *M. ezeas* n. sp. Cape Three Points, N.S.W. **Hedley**, C. Sydney, N.S.W., Mem. Austr. Mus., 4, pt. 6, 1903, (362, fig. 86).

*Odontostomia rugatoria* n. sp. Cape Three Points, N.S.W. **Hedley**, C. l.c. (363, fig. 87).

*Odontostomia*† nn spp. **Dall** and **Bartsch** in **Arnold**, R. [Reprinted from San Francisco, Mem. Cal. Acad. Sci., 3] in Stanford University, Cal., Leland Stanford Jr. Univ., Hopkins Seaside Lab., Cont. Biol., No. 31, 1903, (1-420).

(subgenus *Ivora*) **Dall** and **Bartsch** (MSS.) in **Arnold**, R. [Reprinted from San Francisco, Mem. Cal. Acad. Sci., 3] in Stanford University, Cal., Leland Stanford Jr. Univ., Hopkins Seaside Lab., Cont. Biol., No. 31, 1903, (285).

*Promathildia terquemii*† n. nom. Alps. **Bisstram**, A. Freiburg i B., Ber. natf. Ges., 13, 1903, (116-214).

*Pyramidella* (*Syrnola*) *nisoides* n. sp. **Martens**, E. von. Wissenschaftliche Ergebnisse der deutschen, Tiefsee-Expedition. Bd 7, Lfg 1, Jena, 1903, (119).

*Pyrgulina manorae* n. sp. Gulf of Oman. **Melville**, J. C. and **Standen**, R. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (305, pl. XXII).

*Syrnola macrocephala* n. sp. Port Kembla, N.S.W. **Hedley**, C. Sydney, N.S.W., Mem. Austr. Mus., 4, pt. 6, 1903, (362, fig. 85).

*mussandamica* n. sp. Gulf of Oman. **Melville**, J. C. and **Standen**,

R. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (304, pl. XXII).

*Turbonilla* Risso, (type *Turbonilla typica* **Dall** and **Bartsch** n. nom = *Turbonilla plicatula* Risso, non *Turbo* (= *Turbonilla plicatulus* Brocchi);† nn. spp. **Arnold**, R. [Reprinted from San Francisco, Mem. Cal. Acad. Sci., 3] in Stanford University, Cal., Leland Stanford Jr. Univ., Hopkins Seaside Lab., Cont. Biol., No. 31, 1903, (270-278).

*similans* n. sp. S. Africa. **Smith**, E. A. London, Proc. Malac. Soc., 5, 1903, (386-387, pl. XV, fig. 13).

## Eulimidae.

*Entosiphon* n. gen., *E. deimatis* n. sp. Laccadive Is. **Koehler**, R. and **Vaney**, C. Rev. Suisse Zool., Genève, 11, 1903, (23, fig.).

*Eulina*, old and new species. **Sykes**, E. R. London, Proc. Malac. Soc., 5, 1903, (348-353, pl. XIV).

*decagyrus* n. sp. Gulf of Oman. **Melville**, J. C. and **Standen**, R. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (302, pl. XXI).

*munita* n. sp. Cape Three Points, N.S.W. **Hedley**, C. Sydney, N.S.W., Mem. Austr. Mus., 4, pt. 6, 1903, (358, fig. 81).

*wanneri*† n. sp. Blättermergel von Theben. **Oppenheim**, P. München, SitzBer. Ak. Wiss., math.-phys. Cl., 32, (1902), 1903, (435-456).

*Leiostraca lodderae* n. sp. Cape Three Points, N.S.W. **Hedley**, C. Sydney, N.S.W., Mem. Austr. Mus., 4, pt. 6, 1903, (360, fig. 82).

*Pseudorissina exigua* n. sp. Cape Three Points. **Hedley**, C. l.c. (361, fig. 83).

## RACHIGLOSSA.

## Muricidae.

*Eupleura muriciformis*, var. *curta*† n. var. **Arnold**, R. [Reprinted from San Francisco, Mem. Cal. Acad. Sci., 3] in Stanford University, Cal., Leland Stanford Jr. Univ., Hopkins Seaside Lab., Cont. Biol., No. 31, 1903, (248).

*Laticaris rosaceus* n. sp. Cape Colony. **Smith, E. A.** London, Proc. Malac. Soc., **5**, 1903, (376, pl. XV, fig. 16).

*Murex*, le venin de la glande à pourpre. **Dubois, R.** Paris, C.-R. soc. biol., **55**, 1903, (81).

———— *damicornis* n. sp. Coogee, N.S.W. **Hedley, C.** Sydney, N.S.W., Mem. Austr. Mus., **4**, pt. 6, 1903, (378, fig. 92).

———— *gallinago* n. sp. Japan. **Sowerby, G. B.** Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (496).

———— *marcoensis*. **Baker, F. C.** Nautilus, Boston, Mass., **17**, 1903, (88-89).

———— (*Ocenebra*) *marjorise* n. sp. Persian (Gulf. **Melville, J. C.** and **Standen, R.** Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (308, pl. XXII).

———— *pauici* n. sp. California. **Dall, W. H.** Washington, D.C., Proc. Biol. Soc., **16**, 1903, (174).

———— (*Ocenebra*) *submissus* n. sp. **Smith, E. A.** Fauna Mald. Laccad. Arch., **II**, (609).

*Ocenebra keepi*† n. sp., *O. lurida* var. *cerritensis*† n. var. **Arnold, R.** [Reprinted from San Francisco, Mem. Cal. Acad. Sci., **3**] in Stanford University, Cal., Leland Stanford Jr. Univ., Hopkins Seaside Lab., Cont. Biol., No. **31**, 1903, (1-420).

*Olivella affluens*† n. sp. **Casey, T. L.** Philadelphia, Pa., Proc. Acad. Nat. Sci., **55**, 1903, (261-283).

*Pentadactylus* nn. spp. Japan. **Sowerby, G. B.** Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (496-497).

*Purpura*, la purpurase. **Dubois, R.** Paris, C.-R. soc. biol., **55**, 1903, (82).

———— *eudeli* n. sp. West Africa. **Sowerby, G. B.** J. Malac., London, **10**, 1903, (74, pl. V, fig. 3).

———— *lapillus*, formation de la pourpre. **Dubois, R.** Paris, C.-R. Acad. sci., **136**, 1903, (117-118).

———— *pseudamygdala* n. sp. Australia. **Hedley, C.** Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, **27**, (1902), 1903 (599, pl. XXIX, figs. 4, 5).

———— *pura* n. sp. Natal. **Smith, E. A.** London, Proc. Malac. Soc., **5**, 1903, (376-377, pl. XV, fig. 21).

*Purpura sertata* n. sp. Port Kembla, N.S.W. **Hedley, C.** Sydney, N.S.W., Mem. Austr. Mus., **4**, pt. 6, 1903, (382, figs. 95, 96).

*Sistrum squamiliratum* n. sp. Natal. **Smith, E. A.** London, Proc. Malac. Soc., **5**, 1903, (377, pl. XV, fig. 17).

*Trophon*† nn spp. **Arnold, R.** [Reprinted from San Francisco, Mem. Cal. Acad. Sci., **3**] in Stanford University, Cal., Leland Stanford Jr. Univ., Hopkins Seaside Lab., Cont. Biol., No. **31**, 1903, (1-420).

———— *simplex* n. sp. Port Kembla, N.S.W. Sydney, N.S.W., Mem. Austr. Mus., **4**, pt. 6, 1903, (380, fig. 93).

*Typhis syringianus* n. sp. Cape Three Points, N.S.W. **Hedley, C.** Sydney, N.S.W., Mem. Austr. Mus., **4**, pt. 6, 1903, (381, fig. 94).

———— *transcurrens* n. sp. Tiefsee-Expedition. **Martens, E. von.** Berlin, SitzBer. Ges. natf. Freunde, **1902**, (237-244).

## Columbellidae.

### GENERAL.

**Melville, J. C.** A revision of the *Columbellidae* of the Persian Gulf and North Arabian Sea. J. Malac., London, **10**, 1903, (27-31, with fig.).

**Pace, S.** Critical notes on Hervier's monograph. *Columbellidae*, New Caledonia. J. conchyliol., Paris, **50**, 1902, (412-422).

### SPECIAL.

*Amphissa ventricosa*† n. sp. **Arnold, R.** [Reprinted from San Francisco, Mem. Cal. Acad. Sci., **3**] in Stanford University, Cal., Leland Stanford Jr. Univ., Hopkins Seaside Lab., Cont. Biol., No. **31**, 1903, (1-420).

*Columbella*† nn. spp. **Arnold, R.** l.e. ——— (*Mitrella*) *calliope* n. sp. Bombay. **Melville, J. C.** J. Malac., London, **10**, 1903, (29, with fig.).

———— *hervieri* n. nom. New Caledonia. **Pace, S.** J. conchyliol., Paris, **50**, 1902, (420).

———— (*Nitidella*) *seychellarum* n. sp. **Martens, E. von.** Wissenschaftliche

Ergebnisse der deutschen Tiefsee-Expedition. Bd 7, Lfg 1, Jena, 1903, (105).

### Nassidae.

*Nassa* nn. spp. **Smith**, E. A. Fauna Mald. Laccad. Arch., II, (606-607).

———— *reticulata* L. **Silantiev**, A. A. Vést. rybopromysl., St. Petersburg, 1903, 18, (445-446).

———— *ceritensis* † n. sp., *N. versicolor* var. *hooveri* † n. var. **Arnold**, R. [Reprinted from San Francisco, Mem. Cal. Acad. Sci., 3.] in Stanford University, Cal., Leland Stanford Jr. Univ., Hopkins Seaside Lab., Cont. Biol., No. 31, 1903, (1-420).

———— (*Amycla*) *circumtexta* n. sp. **Martens**, E. von. Wissenschaftliche Ergebnisse der deutschen Tiefsee-Expedition. Bd 7, Lfg 1. Jena, 1903, (27).

———— (*Alectryon*) *himerocessa* n. sp. Gulf of Oman. **Melville**, J. C. and **Standen**, R. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (306, pl. XXII).

———— *natalensis* n. sp. Natal. **Smith**, E. A. London, Proc. Malac. Soc., 5, 1903, (373, pl. XV, fig. 6).

———— *obsoleta*, *N. trivittata* from Cold Spring Harbour, variation. **Dimon**, A. C. Biometrika, Cambridge, 2, 1903, (24-43).

———— *optima* n. sp. N. W. Australia. **Sowerby**, G. B. J. Malac., London, 10, 1903, (73, pl. V, figs. 1, 2).

———— *trifasciata*. A. Adams. figured; and 2 nn. spp. S. Africa. **Sowerby**, G. B. Cape Town, Marin. Invest., 2, 1903, (219, 228, pl. IV, figs. 1-3).

*Nassaria teres* n. sp. Tiefsee-Expedition. **Martens**, E. von. Berlin, Sitzber. Ges. natf. Freunde, 1902, (237-244).

### Buccinidae.

*Euthria pura* n. sp. **Martens**, E. von. Wissenschaftliche Ergebnisse der deutschen Tiefsee-Expedition. Bd 7, Lfg 1. Jena, 1903, (25).

*Fascinus* n. gen., *F. typicus* n. sp. Port Kembla, N.S.W. **Hedley**, C. Sydney, N.S.W.. Mem. Austr. Mus., 4, pl. 6, 1903, (376, fig. 91).

*Lachesia? australis* n. sp. **Martens**, E. von. Wissenschaftliche Ergebnisse der deutschen Tiefsee-Expedition. Bd 7, Lfg 1. Jena, 1903, (62).

*Macron*, note on the genus. **Melville**, J. C. J. Conch., Leeds, 10, 1903, (320-330).

———— *trochlea*, note. **Smith**, E. A. l.c. (351).

*Metula*† nn. spp. **Casey**, T. L. Philadelphia, Pa., Proc. Acad. Nat. Sci., 55, 1903, (261-283).

———— *daphnelloides* n. sp. Gulf of Oman. **Melville**, J. C. and **Standen**, R. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (307-308, pl. XXII).

*Phos*† nn. spp. **Casey**, T. L. Philadelphia, Pa., Proc. Acad. Nat. Sci., 55, 1903, (261-283).

*Pseudamycla* Pace, note on the genus, *P. dermestoides* (Lam.), *P. milostoma* (Ten.-Wds.). **Pace**, S. London, Proc. Malac. Soc., 5, 1903, (267-269).

*Pseudoliva*, note on the genus. **Melville**, J. C. J. Conch., Leeds, 10, 1903, (320-330).

*Sylvanocochlis* n. gen. South Africa. **Melville**, J. C. l.c. (325).

*Tritonidea sowerbyana* n. sp. Gulf of Oman. **Melville**, J. C. and **Standen**, R. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (306-307, pl. XXII).

### Turbinellidae.

*Fulgur*, phylogeny. **Grabau**, A. W. Amer. Nat., Boston, Mass., 37, 1903, (515-539).

———— notes on the genus. **Johnson**, C. W. Nautilus, Boston, Mass., 17, 1903, (73-75).

*Melzgeria californica* n. sp. **Dall**, W. H. l.c. (51-52).

*Sycotypus*, phylogeny. **Grabau**, A. W. Amer. Nat., Boston, Mass., 37, 1903, (515-539).

*Tudicla beushauseni*† n. sp. **Wollemann**, A. Berlin, Jahrb. geol. Landesant., 21, 1901, Abh. auss. st. Pers., (1-30).

———— *subcarinata*† n. sp. **Sturm**, F. l.c. (39-98).

## Fasciolaridae.

*Cochlicospirella*† n. gen. **Casey**, T. L. Philadelphia, Pa., Proc. Acad. Nat. Sci., **55**, 1903, (279).

*Fasciolaria rutila* Watson figured. **Sowerby**, G. B. Cape Town, Marin. Invest., **2**, 1903, (227, pl. III, fig. 2).

*Fusus texanus*† n. sp. Buda Limestone, Texas. **Shattuck**, G. B. Washington, D.C., Bull. Dept. Inst., U. S. Geol. Surv., No. **205**, 1903, (9-36, with pl.).

——— *waitei* n. sp. Cape Three Points, N.S.W. **Hedley**, C. Sydney, N.S.W., Mem. Austr. Mus., **4**, pt. 6, 1903, (393, pl. XXXVII).

*Lagena*? *antartica*† n. sp. **Weller**, S. Chicago, Ill., J. Geol. Univ. Chic., **11**, 1903, (413-419).

*Latirus singularis* n. sp. **Sowerby**, G. B. J. Malac., London, **10**, 1903, (74, pl. V, fig. 10).

*Neptunopsis pyrrhostoma* Wats. figured. **Sowerby**, G. B. Cape Town, Marin. Invest., **2**, 1903, (226, pl. III, fig. 1).

*Persisternia corallina* n. sp. Persian Gulf. **Melville**, J. C. and **Standen**, R. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (308, pl. XXII).

## Mitridae.

*Mitra* nn. spp. California. **Dall**, W. H. Washington, D.C., Proc. Biol. Soc., **16**, 1903, (173).

——— (*Costellaria*) *angustissima* n. sp. **Smith**, E. A. Fauna Mald. Laccad. Arch., **11**, (605).

——— *diaconalis* n. sp. Persian Gulf. **Melville**, J. C. and **Standen**, R. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (308-309, pl. XXII).

——— (*Phaeomitra*) *triplicata* n. sp. **Martens**, E. von. Wissenschaftliche Ergebnisse der deutschen Tiefsee-Expedition. Bd 7, Lfg 1. Jena, 1903, (106).

*Mitromorpha intermedia*† n. sp. **Arnold**, R. [Reprinted from San Francisco, Mem. Cal. Acad. Sci., **3**] in Stanford University, Cal., Leland Stanford Jr. Univ., Hopkins Seaside Lab., Cont. Biol., No. **31**, 1903, (223).

## Volutidae.

*Fusivoluta* n. subgen. Tief-See. **Martens**, E. von. Berlin, SitzBer. Ges. natf. Freunde, **1902**, (237-244).

*Lyria nestor*† n. subsp. **Casey**, T. L. Philadelphia, Pa., Proc. Acad. Nat. Sci., **55**, 1903, (261-283).

*Melo diadema*, neanic shell. **Kesteven**, H. L. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, **23**, 1903, (443).

——— *indicus* Gmel, note on the nepionic shell. **Woodward**, B. B. London, Proc. Malac. Soc., **5**, 1903, (260).

*Voluta* nn. spp. **Sowerby**, G. B. J. Malac., London, **10**, 1903, (74-76, pl. V, fig. 7, 8).

——— *epigona* n. sp. **Martens**, E. von. Wissenschaftliche Ergebnisse der deutschen Tiefsee-Exhibition. Bd 7, Lfg 1. Jena, 1903, (106).

——— (*Fusivoluta* n. subgen.) *anomala* n. sp. Tief-See. **Martens**, E. von. Berlin, SitzBer. Ges. natf. Freunde, **1902**, (237-244).

## Marginellidae.

*Marginella* nn. spp. Port Kembla, N.S.W. **Hedley**, C. Sydney, N.S.W., Mem. Austr. Mus., **4**, pt. 6, 1903, (365, 367, figs. 88-90).

——— (*Glabella*) *alchymista* n. sp. et nn. varr. Persian Gulf. **Melville**, J. C. and **Standen**, R. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (309-310, pl. XXII).

——— *fallax* n. sp. Cape Colony. **Smith**, E. A. London, Proc. Malac. Soc., **5**, 1903, (365, pl. XV, fig. 20).

——— *fischeri* n. sp. **Bavay**, A. J. conchyliol., Paris, **50**, 1902, (407-408, av. fig. et pl.).

——— (*Marginellona*) *gigas* n. sp. **Martens**, E. von. Wissenschaftliche Ergebnisse der deutschen Tiefsee-Expedition. Bd 7, Lfg 1. Jena, 1903, (108).

——— (*Glabella*) *lateritia* n. sp. Andaman Islands. **Melville**, J. C. and **Sykes**, E. R. London, Proc. Malac. Soc., **5**, 1903, (410, with fig.).

## Olividae.

*Ancilla contusa* Reeve figured. Sowerby, G. B. Cape Town, Marin. Invest., 2, 1903, (228, pl. III, fig. 3).

*Ancillaria hasta* n. sp. Tiefsee-Expedition. Martens, E. von. Berlin, SitzBer. Ges. natif. Freunde, 1902, (237-244).

*Oliva*, means of determination of the species. Bridgman, F. G. London, Proc. Malac. Soc., 5, 1903, (346-347).

——— nn. spp. Siboga Expedition. Schepman, M. M. Helder, Tijdschr. Ned. Dierk. Ver., (Ser. 3), 8, [1903], (67-69).

——— *rubrolabiata* n. sp. New Hebrides. Fischer, H. J. conchyliol., Paris, 50, 1902, (409-411, av. fig. et pl.).

## TOXOGLOSSA.

## Terebridae.

*Terebra helichrysum* n. sp. Persian Gulf. Melvill, J. C. and Standen, R. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (310, pl. XXII).

——— *loisae* n. sp., *T. (Hastula) casta* var. *natalensis* n. var. Natal. Smith, E. A. London, Proc. Malac. Soc., 5, 1903, (360, pl. XV, fig. 1).

## Conidae.

*Bathytoma biconica* n. sp. Shoallaven Bight, N.S.W. Hedley, C. Sydney, N.S.W., Mem. Austr. Mus., 4, pt. 6, 1903, (385, fig. 98).

*Bela sanctae-monicae* † n. sp. Arnold, R. [Reprinted from San Francisco, Mem. Cal. Acad. Sci., 3.] in Stanford University, Cal., Leland Stanford Jr. Univ. Hopkins Seaside Lab., Cont. Biol., No. 31, 1903, (1-420).

*Clathurella* nn. spp. Persian Gulf. Melvill, J. C. and Standen, R. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (314-315, pls. XXII-XXIII).

——— *loirei* n. sp. California. Dall, W. H. Washington, D.C., Proc. Biol. Soc., 16, 1903, (172).

*Conus* nn. spp. S. Africa. Sowerby, G. B. Cape Town, Marin. Invest., 2, 1903, (217-218, pl. III, figs. 7-9).

——— *boubéae* n. sp. Sowerby, G. B. J. Malac., London, 10, 1903, (76, pl. V, fig. 5).

——— *prometheus* Hwass = *C. nicholii* Wilson. Nautilus, Philadelphia, Pa., 16, 1903, (143).

——— *scopularia* † n. sp. Casey, T. L. Philadelphia, Pa., Proc. Acad. Nat. Sci., 55, 1903, (261-283).

*Cythara elegantissima* n. sp. (Gulf of Oman. Melvill, J. C. and Standen, R. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (319, pl. XXIII).

*Daphnella* nn. spp. Persian Gulf. Melvill, J. C. and Standen, R. l.c. (315-318, pl. XXIII).

——— *vestalis* n. sp. Cape Three Points, N.S.W. Hedley, C. Sydney, N.S.W., Mem. Austr. Mus., 4, pt. 6, 1903, (390, fig. 105).

*Drillia* nn. spp. Port Kembla, N.S.W. Hedley, C. l.c. (387, figs. 100, 101).

——— nn. spp. Persian Gulf. Melvill, J. C. and Standen, R. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (311-313, pl. XXII-XXIII).

——— *harmonica* † n. sp. Casey, T. L. Philadelphia, Pa., Proc. Acad. Nat. Sci., 55, 1903, (261-283).

——— † nn. spp. Arnold, R. [Reprinted from San Francisco, Mem. Cal. Acad. Sci., 3.] in Stanford University, Cal., Leland Stanford Jr. Univ., Hopkins Seaside Lab., Cont. Biol., No. 31, 1903, (1-420).

——— *sesquitertia* n. sp. Martens, E. von. Wissenschaftliche Ergebnisse der deutschen Tiefsee-Expedition. Bd 7, Lfg 1. Jena, 1903, (82).

*Leucosyrinx recta* n. sp. Cape Three Points, N.S.W. Hedley, C. Sydney, N.S.W., Mem. Austr. Mus., 4, pt. 6, 1903, (386, fig. 99).

*Mangilia* † nn. spp. Arnold, R. [Reprinted from San Francisco, Mem. Cal. Acad. Sci., 3.] in Stanford University, Cal., Leland Stanford Jr. Univ., Hopkins Seaside Lab., Cont. Biol., No. 31, 1903, (1-420).



*Puncturella* (*Cranopsis*) nn. spp.  
Tiefsee-Expedition. **Martens**, E. von.  
Berlin, SitzBer. Ges. natf. Freunde,  
1902, (237-244).

### Pleurotomariidae.

*Eotomaria* † nn. spp. Upper Silurian,  
New York. **Clarke**, J. M. and **Ruedemann**,  
R. Albany Univ., N.Y., Mem.  
St. Mus., No. 5, 1903, (195).

*Hormotoma whiteavesi* † n. sp. Upper  
Silurian, New York. **Clarke**, J. M. and  
**Ruedemann**, R. l.c. (195).

*Pleurotomaria beyrichi*, Handelswerth  
und Grad der augenblicklichen  
Seltenheit. **Cort**, H. de. Uebers. aus  
Bull. soc. r. malacol. d. Belg. 2. III.  
01 . . . v. D. F. Heynemann.  
Frankfurt a. M., NachrBl. D. malakozool.  
Ges., 35, 1903, (14-16).

———— *capillaria* Conrad mut.  
*pygmaea* † n. mut., *P. itys* Hall mut.  
*pygmaea* † n. mut. **Loomis**, F. B.  
Albany Univ., N.Y., Bull. St. Mus., No.  
69, 1903, (892-920).

———— *hirasei* n. sp. Japan.  
**Pilsbry**, H. A. Philadelphia, Pa., Proc.  
Acad. Nat. Sci., 55, 1903, (496);  
Nautilus, Boston, Mass, 17, 1903, (36).

———— *Lóczyi* † n. sp. Ostasien.  
**Schellwien**, E. In: K. Futterer, Durch  
Asien, Bd 3, 1903, (125-174).

———— *stantoni* † n. sp. Buda  
limestone, Texas. **Shattuck**, G. B.  
Washington, D.C., Bull. Dept. Int., U. S.  
Geol. Surv., No. 205, 1903, (9-36, with  
pl.).

———— *thebensis* † n. sp. Blätter-  
mergel von Theben. **Oppenheim**, P.  
München, SitzBer. Ak. Wiss., math-  
phys. Cl., 32, (1902), 1903, (435-456).

*Scissurella aetheria* n. sp. Gulf of  
Oman. **Melville**, J. C. and **Standen**, R.  
Ann. Mag. Nat. Hist., London, (Ser. 7),  
12, 1903, (300-301, pl. XXI).

———— *australis* n. sp. Port  
Kembla, N.S.W. **Hedley**, C. Sydney,  
N.S.W., Mem. Austr. Mus., 4, pt. 6,  
1903, (329, fig. 63).

———— *dalli* n. sp. Patagonia.  
**Bartsch**, P. Nautilus, Boston, Mass.,  
17, 1903, (90-91).

### Bellerophonitidae.

*Bellerophon* (*Bucania*?) *sphaericus* †  
n. sp. Unterdevon, Marburg. **Walther**,  
K. N. Jahrb. Min., Stuttgart, Beilagebd.  
17, 1903, (2-75).

———— *shelbiensis* † n. sp. Upper  
Silurian, New York. **Clarke**, J. M. and  
**Ruedemann**, R. Albany Univ., N.Y.,  
Mem. St. Mus., No. 5, 1903, (195).

### Cocculinidae.

*Cocculina* nn. spp. **Thiele**, J. in  
**Martens**, E. von. Wissenschaftliche  
Ergebnisse der deutschen Tiefsee-  
Expedition. Bd 7, Lfg 1, Jena, 1903,  
(128-129).

———— *meridionalis* n. sp. Port  
Kembla, N.S.W. **Hedley**, C. Sydney,  
N.S.W., Mem. Austr. Mus., 4, pt. 6, 1903,  
(331, fig. 64).

### Stomatellidae.

*Stomatella exquisita* n. sp. **Sowerby**,  
G. B. J. Malac., London, 10, 1903, (76-  
77, pl. V, fig. 4).

### Cyclostrematidae.

*Cyclostrema* nn. spp. Persian Gulf.  
**Melville**, J. C. and **Standen**, R. Ann.  
Mag. Nat. Hist., London, (Ser. 7), 12,  
1903, (291-293, pl. XX).

———— (*Tubiola*) *semisculptum*  
n. sp. **Martens**, E. von. Wissenschaft-  
liche Ergebnisse der deutschen Tiefsee-  
Exhibition. Bd 7, Lfg 1, Jena, 1903,  
(49).

### Liottiidae.

*Delphinoidea coronadoensis* † n. sp.  
**Arnold**, R. [Reprinted from San Fran-  
cisco, Mem. Cal. Acad. Sci., 3.] in  
Stanford University, Cal., Leland Stan-  
ford Jr. Univ., Hopkins Seaside Lab.,  
Cont. Biol., No. 31, 1903, (1-420).

*Liottia* nn. spp. Persian Gulf. **Mel-  
ville**, J. C. and **Standen**, R. Ann. Mag.  
Nat. Hist., London, (Ser. 7), 12, 1903,  
(293-294, pl. XX).

———— *bicarinata* n. sp. **Martens**,  
E. von. Wissenschaftliche Ergebnisse  
der deutschen Tiefsee-Expedition. Bd  
7, Lfg 1, Jena, 1903, (46).

*Liotia disjuncta* n. sp. Cape Three Points, N.S.W. **Hedley**, C. Sydney, N.S.W., Mem. Austr. Mus., 4, pt. 6, 1903, (337, fig. 66).

——— *squamicosata* n. sp. **Smith**, E. A. Fauna Mald. Laccad. Arch., II, (617).

### Trochidae.

*Calliostoma* nn. spp. S. Africa. **Sowerby**, G. B. Cape Town, Marin. Invest., 2, 1903, (222, 223, pl. V, figs. 3, 4, 7).

——— *thrincoma* n. sp. Persian Gulf. **Melville**, J. C. and **Standen**, R. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (296, pl. XX).

*Clanculus gemmulifer* var. *pallidus* n. var. Japan. **Pilsbry**, H. A. Nautilus, Boston, Mass., 17, 1903, (69-71).

——— *miztus* n. sp. Cape Colony. **Smith**, E. A. London, Proc. Malac. Soc., 5, 1903, (389, pl. XV, fig. 7).

*Enida persica* n. sp. Gulf of Oman. **Melville**, J. C. and **Standen**, R. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (294, pl. XX).

*Ethalia floccata* n. sp. Japan. **Sowerby**, G. B. l.c. (500).

——— *rhodomphala* n. sp. **Smith**, E. A. Fauna Mald. Laccad. Arch., II, (618).

*Euchelus townsendianus* n. sp. Persian Gulf. **Melville**, J. C. and **Standen**, R. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (295, pl. XX).

*Gibbula* nn. spp. et n. var. Japan. **Pilsbry**, H. A. Nautilus, Boston, Mass., 17, 1903, (69-71).

*Margarita*† nn. varr. **Arnold**, R. [Reprinted from San Francisco, Mem. Cal. Acad. Sci., 3.] in Stanford University, Cal., Leland Stanford Jr. Univ., Hopkins Seaside Lab., Cont. Biol., No. 34, 1903, (332, 333).

*Minolia arata* n. sp. Botany Bay, N.S.W. **Hedley**, C. Sydney, N.S.W., Mem. Austr. Mus., 4, pt. 6, 1903, (333, fig. 65).

——— (*Nachaeroplax*) congener n. sp. S. Africa. **Sowerby**, G. B. Cape Town, Marin. Invest., 2, 1903, (223, pl. V, fig. 2); *M. laevisima* **Martens**. Figured, ib., (231, pl. V, fig. 2).

*Minolia ornata* n. sp. Japan. **Sowerby**, G. B. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (499-500).

*Monilea* (*Rossiteria*) *nucleolus* n. sp. Japan. **Pilsbry**, H. A. Nautilus, Boston, Mass., 17, 1903, (69-71).

*Solariella* nn. spp. Tiefsee-Expedition. **Martens**, E. von. Berlin, SitzBer. Ges. natf. Freunde, 1902, (237-244).

——— *persculpta* n. sp. S. Africa. **Sowerby**, G. B. Cape Town, Marin. Invest., 2, 1903, (233, pl. V, fig. 8).

——— *sacalles* n. sp. Persian Gulf. **Melville**, J. C. and **Standen**, R. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (295-296, pl. XX).

*Stylobates* n. gen., *S. aeneus* n. sp. Hawaii. **Dall**, W. H. Nautilus, Boston, Mass., 17, 1903, (61-62).

*Thalotia maldivensis* n. sp. **Smith**, E. A. Fauna Mald. Laccad. Arch., II, (617).

### Turbinidae.

*Astrarium* (*Cyclocantha*) *gilchristi* n. sp. S. Africa; *A. andersoni* **Smith**, figured. **Sowerby**, G. B. Cape Town, Marin. Invest., 2, 1903, (221, 230, pl. IV, fig. 6, pl. V, fig. 5).

*Collonia bicarinata* n. sp. Tiefsee-Expedition. **Martens**, E. von. Berlin, SitzBer. Ges. natf. Freunde, 1902, (237-244).

*Leptothyra rubens* n. sp. Gulf of Oman. **Melville**, J. C. and **Standen**, R. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (296, pl. XX).

*Phasianella tristis* n. sp. Japan. **Pilsbry**, H. A. Nautilus, Boston, Mass., 17, 1903, (69).

*Poleumita*† n. nom. = *Polytropis* de Koninck not. Scandberger; *P. scamnata*† n. sp. Upper Silurian, New York. **Clarke**, J. M. and **Ruedemann**, R. Albany Univ., N.Y., Mem. St. Mus., No. 5, 1903, (195).

### Neritidae.

*Nerita proxima* n. sp. Japan. **Sowerby**, G. B. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (498-499).

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## Stomatellinae.

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## Cyclostrematidae.

Melville, J. C. and Standen, R. Ann.  
Mag. Nat. Hist., London, (Ser. 7), 12,  
1903, 291-293, pl. XX

n. sp. *(Tubicola) semisulphatum* Martens, F. von. Wissenschaftliche Ergebnisse der deutschen Tiefsee-Expedition. Bd 7, Lfg 1, Jena, 1903. (49).

## Liotiidae.

*Delphinoidea coronadenia* n. sp.  
 Arnold, R. [Reprinted from San Francisco, Mem. Cal. Acad. Sci., Stanford University, Cal., Leland J. Univ., Hopkins Seaside Cant. Biol. No. 31, 1903, (1-42)] 3.] in the Stanford Lab.

*Lectra* n. sp. Persian Gulf  
viii. J. C. and Standen, R. A.  
Nat Hist., London, (Ser. 7),  
(1903-04, p. XX).

Ergebnisse

Philly M. A. Philadelphia Pa. Univ.  
Arch. Div. 55, 1st Fl. N.Y.  
London Div. 17, 1st Fl. N.Y.

Schellwien, F. In: K. Furrerer, 1964  
Angew. Biol. 1963, 123-174

— *shattucki* n. sp. Budd  
 limestone, Texas. **Shattuck**, G. B.  
 Washington, D.C. Bull. Dept. Int., U.S.  
 Geol. Surv., No. **205**, 1902, (9-36, with  
 pl.)

*Thelasmus* † n. sp. Blätter  
nagel von Thelen. Oppenheim, I  
München. Seltner. Ak. Wiss., math  
phys. (1. 32, (1902), 1903, (435-456).

*Scamondella aetheria* n. sp. Gulf of Oman. **Melville, J. C. and Standen, I.** Ann. Mag. Nat. Hist., London, (Ser. 7) 12, 1903, 300-301, pl. XXI.

12, 1900, pp. 301-304, pl. XXXI.  
*—* *australis* n. sp. For  
 Kewle, N.S.W., Hedley, C. Sydney  
 N.S.W., Mem. Amer. Mus., 4, pt.  
 1, 1900, p. 301, pl. 301.

1903, (25, 54, 55)  
Baruch, C. Nathan, 1903, 1904, 1905, 1906, 1907, 1908, 1909, 1910, 1911, 1912, 1913, 1914, 1915, 1916, 1917, 1918, 1919, 1920, 1921, 1922, 1923, 1924, 1925, 1926, 1927, 1928, 1929, 1930, 1931, 1932, 1933, 1934, 1935, 1936, 1937, 1938, 1939, 1940, 1941, 1942, 1943, 1944, 1945, 1946, 1947, 1948, 1949, 1950, 1951, 1952, 1953, 1954, 1955, 1956, 1957, 1958, 1959, 1960, 1961, 1962, 1963, 1964, 1965, 1966, 1967, 1968, 1969, 1970, 1971, 1972, 1973, 1974, 1975, 1976, 1977, 1978, 1979, 1980, 1981, 1982, 1983, 1984, 1985, 1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580,

*Conularia fimbriata* † n. sp. Underdevon, Marburg. **Walthar**, K. N. Jahrb. Min., Stuttgart, Beilagebd. **17**, 1903, (1-75).

*Cymbulia peronii*, Reifung und Befruchtung des Eies. **Nekrassoff**, A. Anat. Anz., Jena, **24**, 1903, (119-127).

—— *sibogae* n. sp. Siboga Expedition. **Tesch**, J. J. Helder, Tijdschr. Ned. Dierk. Ver., (Ser. 2), **8**, [1903], (113).

*Cymbulioopsis intermedia* n. sp. Siboga-Expedition. **Tesch**, J. J. l.c. (113).

*Paraclione* n. gen., *P. pelseeneeri* n. sp. Siboga Expedition. **Tesch**, J. J. l.c. (117).

*Peraelis* nn. spp. Siboga Expedition. **Tesch**, J. J. l.c. (111, 112).

*Pneumoderma* nn. spp. Siboga Expedition. **Tesch**, J. J. l.c. (114, 115).

*Schizobranchium* n. gen. (~ *Clione*), *S. polycotylum* n. sp. **Meisenheimer**, J. Zool. Anz., Leipzig, **28**, 1903, (410-412).

*Tiedemannia neapolitana*, nidamento. **Ghigi**, A. Mon. zool. ital., Firenze **13**, 1902, (Supplemento), (24-27, con 2 fig.).

## PULMONATA.

### GENERAL.

**Ancey**, F. Faune malacologique terrestre de l'île des Cocos dans l'Océan Pacifique. J. conchyliol., Paris, **51**, 1903, (97-104).

—— Etude sur la faune malacologique des îles Sandwich (5<sup>e</sup> partie). l.c. (295-307, av. 1 pl.).

**Andreas**, A. Land- und Süßwasserschnecken aus Zentral- und Ostasien. [In: K. Futterer, Durch Asien. Bd 3.] Berlin, 1903, (41-90, mit 1 Taf.).

**Bavay**, A. et **Dautzenberg**, Ph. Description de coquilles nouvelles de l'Indo-Chine (3<sup>e</sup> suite). J. conchyliol., Paris, **51**, 1903, (201-236, av. 8 pl.).

**Bilups**, A. C. Fossil land shells of the old Forest bed of the Ohio river. Nautilus, Philadelphia, Pa., **16**, 1902, (50-52).

**Collinge**, W. E. On some species of slugs collected by Mr. H. Fruhstorfer. J. Malac., London, **10**, 1903, (16-17, pl. 1).

—— Notes on slugs and slug-like molluscs. l.c. (17-19).

**Dautzenberg**, P. Contribution à la faune malacologique terrestre et d'eau douce des îles Obi et Iolo. J. conchyliol., Paris, **51**, 1903, (5-20, av. 1 pl. et fig.).

**Dybowski**, W. Zur Kenntniss der ostsibirischen Landschnecken. Frankfurt a. M., NachrBl. D. malakozool. Ges., **35**, 1903, (7-10).

—— Bemerkungen über die gegenwärtige Systematik der Süßwasserschnecken. Frankfurt a. M., NachrBl. D. malakozool. Ges., **35**, 1903, (130-145).

**Gratacap**, L. P. Catalogue of the Binney and Bland collection of the terrestrial air-breathing mollusks of the United States and territories in the American Museum of Natural History, with enumeration of types and figured specimens, and supplementary notes. New York, N.Y., Bull. Amer. Mus. Nat. Hist., **14**, 1901, (335-403, with 6 maps). Separate. 23.5 cm.

**Gude**, G. K. Classified list of the helicoid land shells of Asia. J. Malac., London, **10**, 1903, (5-16, 45-62, 83-98). Corrections and bibliography (129-136, pl. III).

**Yung**, Emile. Siège du sens olfactif chez les Gastéropodes pulmonés terrestres. Verh. Schweiz. Natf. Ges., Aarau, **85**, 1902, (78); Arch. Sci. Phys., Genève, (sér. 4), **14**, 1902, (535-537).

## BASOMMATOPHORA.

### Auriculidae.

*Carychium fischeri* † n. sp. Tertiärkalk, Hochheim. **Boettger**, O. Frankfurt a. M., NachrBl. D. malakozool. Ges., **35**, 1903, (182-184).

### Limnaeidae.

*Ameria obiana* n. sp. Molukken. **Bolle**, H. Frankfurt a. M., NachrBl. D. malakozool. Ges., **35**, 1903, (23-24).

*Neritina fluctatilis*, systèmes nerveux, circulatoire, respiratoire, et excréteur. **Leenssen**, J. Cellule, Louvain, **20**, 1903, (287-333).

———— *gratelopiana* † (hitherto misidentified as *N. fluctatilis*). Pleistocene gravels of the Thames at Swanscomb. **Kennard**, A. S. and **Woodward**, B. B. London, Proc. Malac. Soc., **5**, 1903, (320-321).

———— *subocellata* (Marts.) Schopm. **Schepman**, M. M. Frankfurt a. M., NachrBl. D. malakozool. Ges., **35**, 1903, (20-22).

*Theodoxia fluctatilis*, curieuse station. **Giard**. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (223).

## Helicinidae.

*Helicina gemma* n. sp. Costa Rica. **Preston**, H. B. J. Malac., London, **10**, 1903, (4, with fig.).

———— *varians* n. sp. Santa Cruz Islands. **Sykes**, E. R. l.c. (67)

## PTENOGLLOSSA.

### Ianthinidae.

*Ianthina auriculata* n. sp. **Martens**, E. von. Wissenschaftliche Ergebnisse der deutschen Tiefsee-Expedition. Bd 7, Lfg 1, Jena, 1903, (142).

### Scalaridae.

*Acelis bitaeniata* n. sp. Japan. **Sowerby**, P. B. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (498).

*Crosssea carinata* n. sp. Port Kembla, N.S.W. **Hedley**, C. Sydney, N.S.W., Mem. Austr. Mus., **4**, pt. 6, 1903, (345, fig. 71).

*Scala* (Klein) **Humphrey**, representatives in the Persian Gulf, Gulf of Oman, and North Arabian Sea, with descriptions of new species. **Melville**, J. C. and **Standen**, R. J. Conch., Leeds, **10**, 1903, (340-351, pl. VII).

*Scala* (*Cirsotrema*) *texta* n. sp. **Smith**, E. A. Fauna Mald. Laccad. Arch., **II**, (616).

———— (*Consantia*) *intertexta* n. sp. Gulf of Oman. **Melville**, J. C. and **Standen**, R. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (305-306, pl. XXII).

———— *sauinae* n. sp. California. **Dall**, W. H. Washington, D.C., Proc. Biol. Soc., **16**, 1903, (175).

———— *tenebrosa* n. sp. S. Africa. **Sowerby**, G. B. Cape Town, Marin. Invest., **2**, 1903, (220, pl. IV, fig. 6).

*Scaloria eusculpta* n. sp. Japan. **Sowerby**, G. B. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (497-498).

———— *instricta* n. sp. **Martens**, E. von. Wissenschaftliche Ergebnisse der deutschen Tiefsee-Expedition. Bd 7, Lfg 1, Jena, 1903, (69).

———— *unilateralis* n. sp. Tiefsee-Expedition. **Martens**, E. von. Berlin, SitzBer. Ges. natf. Freunde, **1902**, (237-244).

## TAENIOGLOSSA.

### Naticidae.

*Lunatia draconis* n. sp. California. **Dall**, W. H. Washington, D.C., Proc. Biol. Soc., **16**, 1903, (171-176).

*Macromphalina californica* n. sp. California. **Dall**, W. H. l.c. (175).

*Natica* nn. spp. **Martens**, E. von. Wissenschaftliche Ergebnisse der deutschen Tiefsee-Exhibition. Bd 7, Lfg 1, Jena, 1903, (64, 113).

———— (*Polinices*) *burnupi* n. sp. Durban Bay. **Smith**, E. A. London, Proc. Malac. Soc., **5**, 1903, (385, pl. XV, fig. 11).

———— (*Amauropsis*) *goleana* n. sp. **Dacq**, E. Palaeontographica, Stuttgart, **30**, II, 1903, (337-339, 3 Taf.).

———— *sudetica* † n. sp. **Sturm**, F. Berlin, Jahrb. geol. Landesant., **21**, 1901, Abh. auss. St. Pers., (39-98).

*Sigaretus noyesii* n. sp. Colombia. **Dall**, W. H. Nautilus, Boston, Mass., **17**, 1903, (37-38).

**Lamellariidae.**

*Echinospira compressa* n. sp. Mediterranean. **Lo Bianco**, S. Mitt. zool. Stat. Neapel, Berlin, **16**, 1903, (109-279).

**Trichotropidae.**

*Trichotropis pulcherrima* n. sp. (Gulf of Oman. **Melville**, J. C. and **Standen**, R. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (296-297, pl. XX).

**Capulidae.**

*Crepidula*, embryology. **Conklin**, E. G. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **2**, 1901, (257-265, with text-fig.); [reprint] Philadelphia, Cont. Zool. Lab., Univ. Pa., **1901**, 1902, (257-265, with text fig.).

——— phenomena of fertilization. **Conklin**, E. G. Philadelphia, Cont. Zool. Lab., Univ. Pa., **1901**, 1902, ([280]-287, with text fig.).

**Solaridae.**

*Euomphalus fairchildi*† n. sp. Upper Silurian, New York. **Clarke**, J. M. and **Ruedemann**, R. Albany Univ., N.Y., Mem. St. Mus., No. **5**, 1903, (195).

——— *varicosus*† n. sp. Deutschland, oberdevonisch. **Drevermann**, F. Berlin, Jahrb. geol. Landesant., **21**, 1901, Abh. auss. St. Pers., (96-207).

*Fluzina dalliana* n. sp. (Gulf of Oman. **Melville**, J. C. and **Standen**, R. Ann. Mag. Nat. Hist., London (Ser. 7), **12**, 1903, (298, pl. XXI).

*Homalaxis* nn. spp. Gulf of Oman. **Melville**, J. C. and **Standen**, R. l.e. (298-300, pl. XXI).

——— *meridionalis* n. sp. Cape Three Points, N.S.W. **Hedley**, C. Sydney, N.S.W., Mem. Austr. Mus., **4**, pt. 6, 1903, (351, fig. 74).

*Solarium* nn. spp. Persian Gulf. **Melville**, J. C. and **Standen**, R. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (297, pl. XX, XXI).

——— (*Torinia*) *admirandum* n. sp. Gulf of Oman. **Melville**, J. C. and **Standen**, R. l.e. (322).

——— *supruradiatum* n. sp. **Martens**, E. von. Wissenschaftliche (N 2-9053)

Ergebnisse der deutschen Tiefsee-Expedition. Bd 7, I, fig. 1. Jena, 1903, (118).

**Littorinidae.****GENERAL.**

**Kesteven**, H. L. Notes on Prosobranchiata. No. ii.—Littorinacea. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, **27**, (1902), 1903, (620-636, with 1 pl.).

**SPECIAL.**

*Littorina litorea*, general variation. **Bigelow**, R. P. and **Rathbun**, P. Amer. Nat., Boston, Mass., **37**, 1903, (171-184).

**Fossaridae.**

*Fossarus* (*Couthouyia*) *unicarinalis* n. sp. Arabian Sea. **Melville**, J. C. and **Standen**, R. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (301, pl. XXI).

**Cyclophoridae.**

*Arinia japonica* n. sp. Japan. **Pilsbry**, H. A. and **Hirase**, Y. Nautilus, Philadelphia, Pa., **16**, 1903, (136).

*Cataulus*, preliminary note on the anatomy of the genus. **Digby**, L. London, Proc. Malac. Soc., **5**, 1903, (261).

——— note on the name. **Sykes**, E. R. J. Malac., London, **10**, 1903, (2-3).

——— *connectens* n. sp., *C. greeni* var. *robusta* n. var. Ceylon. **Fulton**, H. l.e. (102, pl. IX, fig. 1, 4).

*Chondrocyclus exsertus* n. sp. Natal. **Melville** and **Pomsonby**. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (608-609).

*Coptocheilus perakensis* n. sp. Malay Peninsula. **Fulton**, H. J. Malac., London, **10**, 1903, (102, pl. IX, fig. 3).

*Cyathopoma* nn. spp. Ceylon and India. **Freston**, H. B. London, Proc. Malac. Soc., **5**, 1903, (340, with figs.).

*Cyclotus* nn. spp. Ost-Borneo. **Martens**, E. von. Berlin, Sitzber. Ges. natif. Freunde, **1903**, (416-428).



*Campylaea niedermayeri* n. sp., *phalerata* n. subsp. Süßwasser. Iconographie der Land- und Süßwasser-Mollusken. **Kobelt** in **Rossmässler**, E. A. Wiesbaden, 1903, (4).

*Cathaica* nn. spp. Zentral- und Ostasien. **Andreas**, A. In: K. Futterer, Durch Asien, Bd 3, 1903, (41-90).

*Chloritis bracteatus* n. sp. Japan. **Pilsbry**, H. A. Nautilus, Philadelphia, Pa., 16, 1902, (21-22).

———— *echizenensis* n. sp. Japan. **Pilsbry**, H. A. and **Hirase**, Y. *l.c.* (116).

———— *romaensis* n. sp. Niederländisch-Indien. **Möllendorff**, O. von Frankfurt a. M., NachrBl. D. malakozool. Ges., 35, 1903, (156).

———— (*Trichochlorites*) *tabularis* n. sp. Sumatra. **Gude**, G. K. J. Malac., London, 10, 1903, (48-49, pl. III).

———— *tosanus* n. sp. Japan. **Pilsbry**, H. A. and **Hirase**, Y. Nautilus, Philadelphia, Pa., 16, 1903, (134-136); 17, 1903, (31-32).

*Cochlostyla delicata* n. sp. **Fulton**, H. J. Malac., London, 10, 1903, (100, pl. IX, fig. 10).

*Eucathaica* n. subgen. (*Cathaica*). **Andreas**, A. In: K. Futterer, Durch Asien, Bd 3, 1903, (41-90).

*Eulota* nn. spp. Japan. **Pilsbry**, H. A. and **Hirase**, Y. Nautilus, Boston, Mass., 17, 1903, (44-46).

———— (*Euhadra*) nn. varr. Japan. **Pilsbry**, H. A. and **Hirase**, Y. *l.c.* (52-55).

———— (*Coelorus*) *cavitectum* n. sp. Japan. **Pilsbry**, H. A. and **Hirase**, Y. *l.c.* 16, 1903, (134-136).

———— *luhuana* var. *yakushimana* n. var. Japan. **Pilsbry**, H. A. and **Hirase**, Y. *l.c.* 17, 1903, (78-79).

———— *sadoensis* n. sp., *E. kinainensis* var. *oshimana* n. var. Japan. **Pilsbry**, H. A. and **Hirase**, Y. *l.c.* 16, 1903, (115).

*Ganesella moellendorffiana* n. sp. Japan. **Pilsbry**, H. A. and **Hirase**, Y. *l.c.* 17, 1903, (78-79).

———— *notoensis* n. sp., *G. cardiotoma* var. *kagaensis* n. var. Japan. **Pilsbry**, H. A. and **Hirase**, Y. *l.c.* 16, 1903, (116).

*Ganesella procera*, Tonkin. **Gude**, G. K. London, Proc. Malac. Soc., 5, 1903, (266, pl. VII, figs. 21-24).

*Helicella barbara*, notes on the so-called appendix. **Overton**, H. J. Malac., London, 10, 1903, (126-128).

*Helicigona arbustorum* var. *bifasciata* n. var. **Kew**, H. W. Naturalist, London, 1903, (341-342, with figs.).

*Helicostyla*, use of name. **F[ilsbry]**, H. A. Nautilus, Boston, Mass., 17, 1903, (58).

———— (*Calocochleas*) *talitularia* n. sp. Malay Peninsula. **Gude**, G. K. J. Malac., London, 10, 1903, (49, pl. III, fig. 3).

*Helix*, revision des espèces françaises du genre. **Granger**, A. Bordeaux, Actes soc. lin., 58, 1903, (1-60).

———— nn. spp., n. var. **Dautzenberg**, P. J. conchyliol., Paris, 51, 1903, (5-20, av. 1 pl.).

———— nn. spp. Moluques. **Dautzenberg**, P. Naturaliste, Paris, (sér. 2), 24, 1902, (247-248).

———— (*Chloritis*, *Planispira*?) nn. spp. Ost-Borneo. **Martens**, E. von Berlin, SitzBer. Ges. natf. Freunde, 1903, (422-423).

———— (*Iberus*) nn. spp. Süßwasser. Iconographie der Land- und Süßwasser-Mollusken. **Kobelt** in **Rossmässler**, E. A. Wiesbaden, 1903, (9, 13-15).

———— (*Iberus Helicogena*) nn. spp. **Kobelt**, W. Frankfurt a. M., NachrBl. D. Malakozool. Ges., 35, 1903, (88-91, 145-151).

———— (*Pomatia*, *Jacosta*) nn. spp. Vorderasien. **Naegels**, G. Frankfurt a. M., NachrBl. D. malakozool. Ges., 35, 1903, (172-173).

———— nn. varr. Maine-et-Loire. **Germain**, L. Nantes, Bul. soc. sci. nat., (ser. 2, 3), 13, 1903, (1-112).

———— *asperna* Muell. **Conte**, A. et **Bonnet**, A. Paris, C.-R. soc. biol., 55, 1903, (198-199).

———— osservazioni sull'accrescimento degli oociti. **Mirabella**, [R.]. Mon. zool. ital., Firenze, 13, 1902, (Supplemento), (58-59).



*Astarte*\*† nn. spp. America. **Dall**, W. H. Washington, D.C., Smithsonian Inst., Nation. Mus. Proc., **28**, 1903, (946-948).

————† nn. spp. Tertiary, Florida. **Dall**, W. H. Philadelphia, Pa., Trans. Wagner Free Inst. Sci., **3**, 1903, (i-xiv + 1219-1654).

———— (*Crassinella*) *branneri*† n. sp. **Arnold**, R. [Reprinted from San Francisco, Mem. Cal. Acad. Sci., **3**,] in Stanford University, Cal., Leland Stanford Jr. Univ., Hopkins Seaside Lab., Cont. Biol., No. **31**, 1903, (1-420).

*Batissa schmidti* n. sp. Ost.-Borneo. **Martens**, E. von. Berlin, Sitzber. Ges. Natf. Freunde, **1903**, (416-428).

*Callocardia* (*Agriopoma*)† nn. spp. Tertiary, Florida. **Dall**, W. H. Philadelphia, Pa., Trans. Wagner Free Inst. Sci., **3**, 1903, (i-xiv + 1219-1654).

*Cardita* (*Carditamera*)† nn. spp. Tertiary, Florida. **Dall**, W. H. Philadelphia, Pa., Trans. Wagner Free Inst. Sci., **3**, 1903, (i-xiv + 1219-1654).

———— *abbreviata* n. sp. Japan. **Sowerby**, G. B. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (500-501).

———— *aldrichi*† n. sp. **Casey**, T. L. Philadelphia, Pa., Proc. Acad. Nat. Sci., **55**, 1903, (261-283).

———— *chaylai*† n. sp. Etampes. **Moulier**, S. Naturaliste, Paris, (sér. 2), **25**, 1903, (55-56, av. fig.).

———— (*Glans*) *sulcosa* n. sp. America. **Dall**, W. H. Philadelphia, Pa., Proc. Acad. Nat. Sci., **54**, 1902, [1903], (696-716).

*Codakia* (*Jagonia*)† nn. spp. Tertiary, Florida. **Dall**, W. H. Philadelphia, Pa., Trans. Wagner Free Inst. Sci., **3**, 1903, (i-xiv + 1219-1654).

*Corbiculina*, n. sect. (Type *Corbicula angasi* Prime). **Dall**, W. H. Washington D.C., Proc. Biol. Soc., **16**, 1903, (6).

*Crassatellites* (*Crassinella*, *Scambula*)† nn. spp. Tertiary, Florida. **Dall**, W. H. Philadelphia, Pa., Trans. Wagner Free Inst. Sci., **3**, 1903, (i-xiv + 1219-1654).

*Cyclocalyx*\*† n. sect. (type *Pisidium scholtzii* Prime). **Dall**, W. H. Washington, D.C., Proc. Biol. Soc., **16**, 1903, (7).

*Cymatocylas* n. subgen., (type *Pisidium compressum* Prime). **Dall**, W. H. l.c. (7).

*Cyrena* (*Pseudocyrena*) *dupliniana*† n. sp. Tertiary, Florida. **Dall**, W. H. Philadelphia, Pa., Trans. Wagner Free Inst. Sci., **3**, 1903, (i-xiv + 1219-1654).

*Cyrenodonax*† n. sect., (type *C. fo-mosana* Dall.) **Dall**, W. H. Washington, D.C., Proc. Biol. Soc., **16**, 1903, (6).

*Diaurora* n. nom. = *Aurora* Simpson not Rog. not Sollas. **Cockerell**, T. D. A. Nautilus, Boston, Mass., **16**, 1903, (118).

*Divaricella*† nn. spp. Tertiary, Florida. **Dall**, W. H. Philadelphia, Pa., Trans. Wagner Free Inst. Sci., **3**, 1903, (i-xiv + 1219-1654).

*Erycinella* (*Carditopsis*) *bernardi*† n. sp. **Dall**, W. H. Tertiary, Florida. l.c. (i-xiv + 1219-1654).

*Felania minor* n. sp. Japan. **Sowerby**, G. B. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (501).

*Kellia natalensis* n. sp. Durban. **Smith**, E. A. London, Proc. Malac. Soc., **5**, 1903, (396, pl. XV, fig. 8).

*Kobya* n. gen., *K. typica*† n. sp. Oxfordien, Jura. **Loriot**, P. de und **Girardot**, A. Basel, Abh. Schweiz. Pal. Ges., **29**, 1902, (58).

*Lirodiscus walesii*† n. sp. Tertiary, Florida. **Dall**, W. H. Philadelphia, Pa., Trans. Wagner Free Inst. Sci., **3**, 1903, (i-xiv + 1219-1654).

*Lucina*† nn. spp. **Casey**, T. L. Philadelphia, Pa., Proc. Acad. Nat. Sci., **55**, 1903, (261-283).

————| nn. spp. Tertiary, Florida. **Dall**, W. H. Philadelphia, Pa., Trans. Wagner Free Inst. Sci., **3**, 1903, (i-xiv + 1219-1654).

*Miodontiscus* n. nom. = *Miodon* Carpenter. **Dall**, W. H. Nautilus, Philadelphia, Pa., **16**, 1903, (143).

*Miodontopsis*† n. nom (= *Miodon*† Sandberger not Carpenter). **Dall**, W. H. Washington, D.C., Proc. Biol. Soc., **16**, 1903, (5).

*Myrtaea*† nn. spp. Tertiary, Florida. **Dall**, W. H. Philadelphia, Pa., Trans. Wagner Free Inst. Sci., **3**, 1903, (i-xiv + 1219-1654).

*Paracyclas lirata* Conrad mut. *pygmaea*† n. mut. **Loomis**, F. B. Albany, Univ., N.Y., Bull. St. Mus., No. 69, 1903, (892-920).

*Phacoides*† nn. spp. Tertiary, Florida. **Dall**, W. H. Philadelphia, Pa., Trans. Wagner Free Inst. Sci., 3, 1903, (i-xiv + 1219-1654).

*Pisidium* nn. spp. **Glessin**, In: K. Futterer, Durch Asien, Bd 3, 1903, (41-90).

———\*† nn. spp. **Sterki**, V. Nautilus, Boston, Mass., 17, 1903, (20-22, 42-43, 79-82).

*Simpsonella* n. nom. = *Dalliella* Simpson not Cossmann. **Cockerell**, T. D. A. l.c. 16, 1903, (118).

*Tellinocyclus*† n. sect., (type *Cyrena tellinella*† Deshayes). **Dall**, W. H. Washington, D.C., Proc. Biol. Soc., 16, 1903, (6).

*Tropidocyclus*† n. subgen., (type *Pisidium henslowianum* Sheppard.) **Dall**, W. H. l.c. (7).

*Unio*† nn. spp. Montana, Cretaceous. **Stanton**, T. W. Philadelphia, Pa., Proc. Amer. Phil. Soc., 42, 1903, (188-199).

———† nn. spp. Montana, from the Laramie. **Whitfield**, R. P. New York, N.Y., Bull. Amer. Mus. Nat. Hist., 19, 1903, (483-487, with 3 pls.).

——— *briarti* n. sp. Congo. **Dautzenberg**, P. Bruxelles, Bull. Soc. roy. malac., 286, 1903, (3-7).

——— *declivis*, specific value. **Frierson**, L. S. Nautilus, Boston, Mass., 17, 1903, (49-51, with pl.).

*Venericardia*† nn. spp. Tertiary, Florida. **Dall**, W. H. Philadelphia, Pa., Trans. Wagner Free Inst. Sci., 3, 1903, (i-xiv + 1219-1654).

——— (*Cyclocardia*) nn. spp. America. **Dall**, W. H. Philadelphia, Pa., Proc. Acad. Nat. Sci., 54, 1902, [1903], (696-716).

——— *ticksburgensis*† n. sp. **Casey**, T. L. l.c. 55, 1903, (261-283).

### Tellinacea.

*Semele pulchra* var. *montreysi*† n. var. **Arnold**, R. [Reprinted from San Francisco, Mem. Cal. Acad. Sci., 3,] in

Stanford University, Cal., Leland Stanford Jr. Univ., Hopkins Seaside Lab., Cont. Biol., No. 31, 1903, (166).

*Tellina consanguinea* n. sp. Japan. **Sowerby**, P. B. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (500).

——— *pilsbryi*† n. sp. **Casey**, T. L. Philadelphia, Pa., Proc. Acad. Nat. Sci., 55, 1903, (261-283).

*Zenatia victorias* n. sp. **Pritchard**, G. B. and **Gatliff**, J. H. Melbourne, Proc. R. Soc. Vict., 16, (N. Ser.), 1903, (92-3, with pl. XV).

### Veneracea.

*Anomalocardia*† nn. spp. Tertiary, Florida. **Dall**, W. H. Philadelphia, Pa., Trans. Wagner Free Inst. Sci., 3, 1903, (i-xiv + 1219-1654).

*Callista subdiaphana* var. *pedroana*† n. var. **Arnold**, R. [Reprinted from San Francisco, Mem. Cal. Acad. Sci., 3,] in Stanford University, Cal., Leland Stanford Jr. Univ., Hopkins Seaside Lab., Cont. Biol., No. 31, 1903, (144).

*Chione*† nn. spp. Tertiary, Florida. **Dall**, W. H. Philadelphia, Pa., Trans. Wagner Free Inst. Sci., 3, 1903, (i-xiv + 1219-1654).

——— *peronii* Lamarck, *C. scalarina* L., *C. strigosa* L. **Pritchard**, G. B. and **Gatliff**, J. H. Melbourne, Proc. R. Soc. Vict., 16, (N. Ser.), 1903, (94-5, with pl. XV).

*Cyclinella gatumensis*† n. sp. Tertiary, Florida. **Dall**, W. H. Philadelphia, Pa., Trans. Wagner Free Inst. Sci., 3, 1903, (i-xiv + 1219-1654).

*Cytherea*† nn. spp. Tertiary, Florida. **Dall**, W. H. l.c. (i-xiv + 1219-1654).

*Dosinia* (*Dosinidia*)† nn. spp. Tertiary, Florida. **Dall**, W. H. l.c. (i-xiv + 1219-1654).

*Gafrarium* (*Gouldia*)† nn. spp. Tertiary, Florida. **Dall**, W. H. l.c. (i-xiv + 1219-1654).

*Gemma*† nn. spp. Tertiary, Florida. **Dall**, W. H. l.c. (i-xiv + 1219-1654).

*Gomphina maorum* n. sp., New Zealand. **Smith**, E. A. J. Malac., London, 9, 1902, [1903], (109-110, with fig.).

*Gratelopuia (Cytheriopsis) alumnensis*† nn. spp. Tertiary, Florida. **Dall**, W. H. Philadelphia, Pa., Trans. Wagner Free Inst. Sci., **3**, 1903, (i-xiv + 1219-1654).

*Macrocallista acuminata*† n. sp. Tertiary, Florida. **Dall**, W. H. l.c. (i-xiv + 1219-1654).

*Pitaria (Hyphantosoma, Lamellioncha)*† nn. spp. Tertiary, Florida. **Dall**, W. H. l.c. (i-xiv + 1219-1654).

*Tivola jamaicensis*† n. sp. Tertiary, Florida. **Dall**, W. H. l.c. (i-xiv + 1219-1654).

*Transennella*† nn. spp. Tertiary, Florida. **Dall**, W. H. l.c. (i-xiv + 1219-1654).

*Venus mercenaria*, habits. **Kellogg**, J. S. Albany Univ., N.Y., Bull. St. Mus., No. **71**, 1903, (27, with pl.).

———— *neoclathrata*† n. nom = *V. clathrata*† Desh. **Dollfus**, G. F. J. conchyliol., Paris, **50**, 1902, (423-428).

———— *sudetica*† n. sp. **Sturm**, F. Berlin, Jahrb. geol., Landesant., **21**, 1901. Abh. auss. st. Pers., (39-98).

## Cardiacea.

### GENERAL.

**Andrusov**, N. Studien über die Brackwassercardiden. Lieferung 1. St. Petersburg, Mém. Ac. Sc., (8 F.), **13**, No. 3, 1903, (82, mit 2 Fig. und 7 Taf.).

### SPECIAL.

*Cardium*, numerical variation of ribs. **Baker**, F. C. Amer. Nat., Boston, Mass., **37**, 1903, (481-488).

————† nn. spp. Buda Limestone, Texas. **Shattuck**, G. B. Washington, D.C., Bull. Dept. Int., U. S., Geol. Surv., No. **205**, 1903, (9-36).

———— *levisulcatum* n. sp. **Smith**, E. A. Fauna Mald. Laccad. Arch., **II**, (624).

*Chama*† nn. spp. Tertiary, Florida. **Dall**, W. H. Philadelphia, Pa., Trans. Wagner Free Inst. Sci., **3**, 1903, (i-xiv + 1219-1654).

*Conocardium beushausenii*† n. sp. Deutschland oberdevonisch. **Drever-**

**mann**, F. Berlin, Jahrb. geol. Landesant., **21**, 1901, Abh. auss. st. Pers., (9)-207).

*Echinochama antiquata*† n. sp. Tertiary, Florida. **Dall**, W. H. Philadelphia, Pa., Trans. Wagner Free Inst. Sci., **3**, 1903, (i-xiv + 1219-1654).

*Limnocardium subequamulosum* n. sp. **Andrusov**, A. A. St. Petersburg, Mém. Ac. Sc., (8 F.), **13**, No. 3, 1903, (82, mit 2 Fig. und 7 Taf.).

*Radiolites ga'ensis*† n. sp. **Dacqué**, E. Palaeontographica, Stuttgart, **30**, **II**, 1903, (337-339, 3 Taf.).

## Myacea.

*Ceratisolen*, anatomy of certain species. **Bloomer**, H. H. J. Malac., London, **10**, 1903, (31-40, pl. II).

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————† nn. spp. Buda Lime-stone, Texas. **Shattuck**, G. B. Washington, D.C., Bull. Dept. Int., U. S., Geol. Surv., No. **205**, 1903, (9-36).

———— *levisulcatum* n. sp. **Smith**, E. A. Fauna Mald. Laccad. Arch., **II**, (624).

*Chama*† nn. spp. Tertiary, Florida. **Dall**, W. H. Philadelphia, Pa., Trans. Wagner Free Inst. Sci., **3**, 1903, (i-xiv + 1219-1654).

*Conocardium beushauseni*† n. sp. Deutschland oberdevonisch. **Drever-**

**mann**, F. Berlin, Jahrb. geol. Landesant., **21**, 1901, Abh. auss. st. Pers., (9)-207).

*Echinochama antiquata*† n. sp. Tertiary, Florida. **Dall**, W. H. Philadelphia, Pa., Trans. Wagner Free Inst. Sci., **3**, 1903, (i-xiv + 1219-1654).

*Limnocardium subequamulosum* n. sp. **Andrusov**, A. A. St. Petersburg, Mém. Ac. Sc., (8 F.), **13**, No. 3, 1903, (82, mit 2 Fig. und 7 Taf.).

*Radiolites ga'ensis*† n. sp. **Dacqué**, E. Palaeontographica, Stuttgart, **30**, II, 1903, (337-339, 3 Taf.).

## Myacea.

*Ceratisolen*, anatomy of certain species. **Bloomer**, H. H. J. Malac., London, **10**, 1903, (31-40, pl. II).

———— *legumen*, note on a malformed specimen. **Bloomer**, H. H. l.c. (104).

*Corbula laqueata*† n. sp. **Casey**, T. L. Philadelphia, Pa., Proc. Acad. Nat. Sci., **55**, 1903, (261-283).

———— *musketowi*† n. sp. **Fergana**, Böhlm., J. In: K. Futterer, Durch Asien, Bd. 3, 1903, (93-112).

———— *rugifera* n. sp. **Natal**, **Smith**, E. A. London, Proc. Malac. Soc., **5**, 1903, (399, pl. XV, figs. 9-10).

*Fistulana clava* Lamk, perforating a shell of *Mitra interlirata* Reeve. **Sowerby**, G. B. and **Fulton**, H. C. l.c. (345, pl. XVI).

*Mya arenaria*, Einwanderung. **Lorenzen**, A. Prometheus, Berlin, **15**, 1903, (61-62).

———— *Fischerei* in der Passamaquoddy - Bay. **Stafford-Toronto**, J. Berlin, Mitt. D. Seefische-reiver., **18**, 1902, (457-461).

*Nearea aegyptiaca*† n. sp. Blättermergel von Theben. **Oppenheim**, P. München, Sitzber. Ak. Wiss., math.-phys. Cl., **32**, (1902), 1903, (435-456).

*Panopaea*† nn. spp. **Sturm**, F. Berlin, Jahrb. geol. Landesant., **21**, 1901, Abh. Auss. st. Pers., (39-98).

*Pharella orientalis*  
**Bloomer**, H. H. 1903, (11)

- CARDITA** [Pelecypoda].  
 — *sulcosa*†. Dall. 105.  
 — *tegea*†. Dall. 106.  
 — *vaughani*†. Dall. 106.
- CARDIUM** [Pelecypoda].  
 — *budaense*†. Shattuck. 391.  
 — *levisulcatum*. Smith. 400.  
 — *vaughani*†. Shattuck. 391.
- CARINARIA** [Heteropoda].  
 — *grimaldi*. Vayssière. 449.
- Carstenia**† n. gen. [Ammonoidea].  
 — Hyatt. 214.  
 — *tuberculata*†. Hyatt. 214.
- CARYCHIUM** [Pulmonata].  
 — *fischeri*†. Boettger. 49.
- CASSIS** [Prosobranchiata].  
 — *microstoma*. Martens. 291.
- CATAULUS** [Prosobranchiata].  
 — *connectens*. Fulton. 160.  
 — *greeni* var. *robusta* n. var.  
 — Fulton. 160.
- CATHAICA** [Pulmonata].  
 — *futtereri*. Andreae. 12.  
 — *holdereri*. Andreae. 12.  
 — *ohlmeri*. Andreae. 12.  
 — *subtilistriata*. Andreae. 12.
- CERASTUS** [Pulmonata].  
 — *amaliae*. Kobelt. 241.  
 — *carolienis*. Kobelt. 241.  
 — *dinshawi*. Sykes. 427.  
 — *ellerbecki*. Kobelt. 241.  
 — *moellendorffi*. Kobelt. 241.
- Ceratophyllidia** n. gen. [Opisthobranchiata]. Eliot. 137.  
 — *africana*. Eliot. 137.
- CEBBERILLA** [Opisthobranchiata].  
 — *africana*. Eliot. 137.
- CERITHIUM** [Prosobranchiata].  
 — *tezanum*†. Shattuck. 391.  
 — *terecundum*. Melvill and Standen. 298.  
 — *zebrum* var. *attenuata* n. var.  
 — Vignal. 450.  
 — var. *bilineata* n.  
 — var. Vignal. 450.  
 — var. *cinerea* n.  
 — var. Vignal. 450.  
 — var. *dilecta* n.  
 — var. Vignal. 450.  
 — var. *maculata* n.  
 — var. Vignal. 450.  
 — var. *multimaculata* n. var. Vignal. 450.  
 — var. *nireca* n. var.  
 — Vignal. 450.

- CERITHIUM** [Prosobranchiata].  
 — *zebrum* var. *ornata* n. var.  
 — Vignal. 450.  
 — var. *pulchra* n.  
 — var. Vignal. 450.  
 — var. *rosea* n. var.  
 — Vignal. 450.  
 — var. *sticta* n. var.  
 — Vignal. 450.  
 — var. *trifasciata*  
 — n. var. Vignal. 450.  
 — var. *trilineata* n.  
 — var. Vignal. 450.  
 — var. *unimaculata*  
 — n. var. Vignal. 450.
- CEROMYA** [Pelecypoda].  
 — *isocardiodes*†. Sturm. 422.
- CHAETODERMA** [Amphineura].  
 — *challengeri*. Nierstrasz.  
 — 316.  
 — *normanni*. Nierstrasz. 316.
- CHAMA** [Pelecypoda].  
 — *caloosana*†. Dall. 106.  
 — *chipolana*†. Dall. 106.  
 — *draconis*†. Dall. 106.  
 — *lyelli*†. Dall. 106.  
 — *tampaensis*†. Dall. 106.
- CHARTONIA** [Ammonoidea].  
 — *costigera*†. Buckman. 60.
- CHELIDONURA** [Opisthobranchiata].  
 — *hirundinina* var. *punctata* n.  
 — var. Eliot. 138.  
 — *philinopsis*. Eliot. 138.  
 — *varians*. Eliot. 138.
- CHIONE** [Pelecypoda].  
 — *ballista*†. Dall. 106.  
 — *craspedonia*†. Dall. 106.  
 — *erosa*†. Dall. 106.  
 — *glyptocyma*†. Dall. 106.  
 — *hendersonii*†. Dall. 106.  
 — *rhodia*†. Dall. 106.  
 — *spada*†. Dall. 106.  
 — *victoria*†. Dall. 106.  
 — *xesta*†. Dall. 106.
- CHITON** [Amphineura].  
 — *sykesi*. Sowerby. 410.
- CHLORITIS** [Pulmonata].  
 — *bracteatus*. Pilsbry. 346.  
 — *echizenensis*. Pilsbry and Hirase. 358.  
 — *romaensis*. Möllendorff, von. 306.  
 — *tabularis*. Gude. 186.  
 — *tosanus*. Pilsbry and Hirase. 359.

*Gratelopuia (Cytheriopsis) aluminensis*† nn. spp. Tertiary, Florida. **Dall**, W. H. Philadelphia, Pa., Trans. Wagner Free Inst. Sci., **3**, 1903, (i-xiv + 1219-1654).

*Macroballista acuminata*† n. sp. Tertiary, Florida. **Dall**, W. H. l.c. (i-xiv + 1219-1654).

*Pitaria (Hyphantosoma, Lamellioncha)*† nn. spp. Tertiary, Florida. **Dall**, W. H. l.c. (i-xiv + 1219-1654).

*Tivela jamaicensis*† n. sp. Tertiary, Florida. **Dall**, W. H. l.c. (i-xiv + 1219-1654).

*Transennella*† nn. spp. Tertiary, Florida. **Dall**, W. H. l.c. (i-xiv + 1219-1654).

*Venus mercenaria*, habits. **Kellogg**, J. S. Albany Univ., N.Y., Bull. St. Mus., No. **71**, 1903, (27, with pl.).

———— *neoclathrata*† n. nom = *V. clathrata*† Desh. **Dollfus**, G. F. J. conchyliol., Paris, **50**, 1902, (423-428).

———— *audetica*† n. sp. **Sturm**, F. Berlin, Jahrb. geol., Landesant., **21**, 1901. Abh. auss. st. Pers., (39-98).

## Cardiacea.

### GENERAL.

**Andrusov**, N. Studien über die Brackwassercardiden. Lieferung 1. St. Petersburg, Mém. Ac. Sc., (8 F.), **13**, No. **3**, 1903, (82, mit 2 Fig. und 7 Taf.).

### SPECIAL.

*Cardium*, numerical variation of ribs. **Baker**, F. C. Amer. Nat., Boston, Mass., **37**, 1903, (481-488).

————† nn. spp. Buda Limestone, Texas. **Shattuck**, G. B. Washington, D.C., Bull. Dept. Int., U. S., Geol. Surv., No. **205**, 1903, (9-36).

———— *levisulcatum* n. sp. **Smith**, E. A. Fauna Mald. Laccad. Arch., **II**, (624).

*Chama*† nn. spp. Tertiary, Florida. **Dall**, W. H. Philadelphia, Pa., Trans. Wagner Free Inst. Sci., **3**, 1903, (i-xiv + 1219-1654).

*Conocardium beushauseni*† n. sp. Deutschland oberdevonisch. **Drever-**

**mann**, F. Berlin, Jahrb. geol. Landesant., **21**, 1901, Abh. auss. st. Pers., (9)-207).

*Echinochama antiquata*† n. sp. Tertiary, Florida. **Dall**, W. H. Philadelphia, Pa., Trans. Wagner Free Inst. Sci., **3**, 1903, (i-xiv + 1219-1654).

*Limnocardium subsquamulosum* n. sp. **Andrusov**, A. A. St. Petersburg, Mém. Ac. Sc., (8 F.), **13**, No. **3**, 1903, (82, mit 2 Fig. und 7 Taf.).

*Radiolites gaënsis*† n. sp. **Dacqué**, E. Palaeontographica, Stuttgart, **30**, **II**, 1903, (337-339, 3 Taf.).

## Myacea.

*Ceratisolen*, anatomy of certain species. **Bloomer**, H. H. J. Malac., London, **10**, 1903, (31-40, pl. II).

———— *legumen*, note on a malformed specimen. **Bloomer**, H. H. l.c. (104).

*Corbula laqueata*† n. sp. **Casey**, T. L. Philadelphia, Pa., Proc. Acad. Nat. Sci., **55**, 1903, (261-283).

———— *muschketowici*† n. sp. **Fergana**. **Böhm**, J. In: K. Futterer, Durch Asien, Bd. **3**, 1903, (93-112).

———— *rugifera* n. sp. **Natal**. **Smith**, E. A. London, Proc. Malac. Soc., **5**, 1903, (399, pl. XV, figs. 9-10).

*Fistulana clava* Lamk, perforating a shell of *Mitra interlirata* Reeve. **Sowerby**, G. B. and **Fulton**, H. C. l.c. (345, pl. XVI).

*Mya arenaria*, Einwanderung. **Lorenzen**, A. Prometheus, Berlin, **15**, 1903, (61-62).

———— Fischerei in der Passamaquoddy-Bay. **Stafford-Toronto**, J. Berlin, Mitt. D. Seefischereiver., **18**, 1902, (457-461).

*Neaera aegyptiaca*† n. sp. Blättermergel von Theben. **Oppenheim**, P. München, Sitzber. Ak. Wiss., math.-phys. Cl., **32**, (1902), 1903, (435-456).

*Panopaea*† nn. spp. **Sturm**, F. Berlin, Jahrb. geol. Landesant., **21**, 1901, Abh. Auss. st. Pers., (39-98).

*Pharella orientalis* Dunke **Bloomer**, H. H. J. Malac., **I** 1903, (114-121, pl. X).

*Solecurtus*, anatomy of certain species.  
**Bloomer**, H. H. J. Malac., London, **10**, 1903, (31-40, pl. II).

*Solen* (Linne), classification of British species. **Bloomer**, H. H. l.c. (41-43).

*Solenomorpha* n. gen., *S. major* n. sp. Lancashire. **Hind**, W. London, Q. J. Geol. Soc., **59**, 1903, (334, with fig.).

*Tagelus rufus* Spengler, anatomy.  
**Bloomer**, H. H. J. Malac., London, **10**, 1903, (114-121, pl. X).

### Pholadacea.

*Teredo navalis* L. Beitrag zur Kenntnis [des Baues] des Schiffsbohrwurmes. (Holländisch) **Keer**, P. M. Leiden (P.W.M. Trap), 1903, (58, mit 4 Taf.).

*Xylophaga praestans* n. sp. Northumberland. **Smith**, E. A. London, Proc. Malac. Soc., **5**, 1903, (328-330, with figs.).

### Anatinacea.

*Anatina*† nn. spp. Buda limestone, Texas. **Shattuck**, G. B. Washington, D.C., Bull. Dept. Int. U.S., Geol. Surv., No. **205**, 1903, (9-36, with pl.).

*Buchiola retrostriata* v. Buch mut. *pygmaea*† n. mut. **Loomis**, F. B. Albany, Univ., N.Y., Bull. St. Mus., No. **69**, 1903, (892-920).

— *semiimpressa*† n. sp. Deutschland oberdevonisch. **Drevermann**, F. Berlin, Jahrb. geol. Landesant., **21**, 1901, Abh. auss. st. Pers., (99-207).

*Cardiola pectinata*† n. sp. Unterdevon, Marburg a. L. **Walther**, K. N. Jahrb. Min., Stuttgart, Beilagebd., **17**, 1903, (1-75).

*Ceromya isocardigides*† n. sp. **Sturm**, F. Berlin, Jahrb. geol. Jar. 1901, Abh. auss. st. Pers..

*Cyathodonta*† nn. Florida. **Dall**, W. Pa., Trans. Wagner 1903, (i-xiv + 1219-1

*Goniomya*† nn. spp. **Sturm**, F. Berlin, Jahrb. geol. Landesant., **21**, 1901, Abh. auss. st. Pers., (39-98).

*Grammysia constricta* Hall mut. *pygmaea*† n. mut. **Loomis**, F. B. Albany, Univ., N.Y., Bull. St. Mus., No. **69**, 1903, (892-920).

*Homomya*† nn. spp. Buda limestone, Texas. **Shattuck**, G. B. Washington, D.C., Bull. Dept. Int., U.S., Geol. Surv., No. **205**, 1903, (9-36, with pl.).

*Lyonsia acuta*† n. sp. Tertiary, Florida. **Dall**, W. H. Philadelphia, Pa., Trans. Wagner Free Inst. Sci., **3**, 1903, (i-xiv + 1219-1854).

*Pandora (Kennerleyia)*† nn. spp. Tertiary, Florida. **Dall**, W. H. l.c. (i-xiv + 1219-1854).

— (*Kennerlia*) *grandis*†. Neocene. **Rivers**, J. J. Los Angeles, Bull., So. Cal. Acad. Sci., **1**, 1902, (69).

*Pholadomya roemerii*† n. sp. Buda limestone, Texas. **Shattuck**, G. B. Washington, D.C., Bull. Dept. Int., U.S., Geol. Surv., No. **205**, 1903, (9-36).

*Prothyris truncata*† n. sp. Devonian, New York. **Cleland**, H. F. Washington, D.C., U.S. Dept. Int. Bull. Geol. Surv., No. **206**, 1903, (112, with pl.).

### SEPTIBRANCHIATA.

*Cuspidaria*† nn. spp. Tertiary, Florida. **Dall**, W. H. Philadelphia, Pa., Trans. Wagner Free Inst. Sci., **3**, 1903, (i-xiv + 1219-1854).

*Poromya jamaicensis*† n. sp. Tertiary, Florida. **Dall**, W. H. l.c. (i-xiv + 1219-1854).

*Spheniopsis americana*† n. sp. Tertiary, Florida. **Dall**, W. H. l.c. (i-xiv + 1219-1854).

*Verticordia*† nn. spp. Tertiary, Florida. **Dall**, W. H. l.c. (i-xiv + 1219-1854).

### SCAPHIPODA

*Scaphiopsis*† nn. spp. **Sturm**, F. Berlin, Jahrb. geol. Jar. 1901, Abh. auss. st. Pers..

- DAPHNELLA** [Prosobranchiata].  
 — *amphitrites*. Melvill and Standen. 298.  
 — *buccinulum*. Melvill and Standen. 298.  
 — *epicharta*. Melvill and Standen. 298.  
 — *euphrosyne*. Melvill and Standen. 298.  
 — *hedya*. Melvill and Standen. 298.  
 — *neridium*. Melvill and Standen. 298.  
 — *thia*. Melvill and Standen. 298.  
 — *thygattrica*. Melvill and Standen. 298.  
 — *vestalis*. Hedley. 195.
- DELPHINOIDEA** [Prosobranchiata].  
 — *coronadoensis*†. Arnold. 14.
- DENCKMANNIA** [Ammonoidea].  
 — *bredonensis*†. Buckman. 60.
- DENTALIUM** [Scaphopoda].  
 — *africanum*. Sowerby. 410.  
 — *exasperatum*. Sowerby. 410.  
 — *inflexum*. Sowerby. 410.  
 — *opaculum*†. Casey. 65.  
 — *polygonum*†. Casey. 65.  
 — *regulare*. Smith. 398.  
 — *strenuum*†. Casey. 65.  
 — *thetidis*. Hedley. 195.  
 — *virgula*. Hedley. 195.  
 — *zephyrinum*†. Casey. 65.
- DIAUROA** n. nom. [Pelecypoda]. Cockerell. 82.
- DIOTYODORIS** [Opisthobranchiata].  
 — *maculata*. Eliot. 139.
- DIMORPHOCERAS** [Ammonoidea].  
 — *texanum*†. Smith. 406.
- DIMYOPSIS** [Pelecypoda].  
 — *emmerichi*† n. nom. Bistram. 36.
- DIPLAGMOCERAS** [Ammonoidea].  
 — *canaliculatum*. Hyatt. 214.
- DIPLOMMATINA** [Prosobranchiata].  
 — *aesopus*. Bavay and Dautzenberg. 27.  
 — *balansai* var. *elata* n. var. Bavay and Dautzenberg. 27.  
 — — var. *intermedia* n. var. Bavay and Dautzenberg. 27.  
 — — var. *robusta* n. var. Bavay and Dautzenberg. 27.
- DIPLOMMATINA** [Prosobranchiata].  
 — *debilis*. Bavay and Dautzenberg. 27.  
 — *granum*. Bavay and Dautzenberg. 27.  
 — *laidlawi*. Sykes. 425.  
 — *lemysrei*. Bavay and Dautzenberg. 27.  
 — *messengeri*. Bavay and Dautzenberg. 27.  
 — *skeati*. Sykes. 425.
- DISCODORIS** [Opisthobranchiata].  
 — *boholiensis*. Eliot. 137.  
 — *caeruleascens*: *variegata* n. subsp. Eliot. 137.
- DITROPIS** [Prosobranchiata].  
 — *cavernae*. Sykes. 425.
- DIVARICELLA** [Pelecypoda].  
 — *chipolana*†. Dall. 106.  
 — *compsa*†. Dall. 106.
- DORIDIUM** [Opisthobranchiata].  
 — *gardinieri*. Eliot. 138.  
 — *reticulatum*. Eliot. 138.
- Doridomorpha** n. gen. [Opisthobranchiata]. Eliot. 139.  
 — *gardinieri*. Eliot. 139.
- DORIS** [Opisthobranchiata].  
 — *beaumonti*. Farran. 149.
- DOSINIA** [Pelecypoda].  
 — *chipolana*†. Dall. 106.  
 — *liogona*†. Dall. 106.
- DOUVILLEICERAS** [Ammonoidea].  
 — *orbigny*†. Hyatt. 214.
- DRILLIA** [Prosobranchiata].  
 — *audax*. Melvill and Standen. 298.  
 — *continua*. Melvill and Standen. 298.  
 — *dilecta*. Hedley. 195.  
 — *dives*. Melvill and Standen. 298.  
 — *granatella*. Melvill and Standen. 298.  
 — *harmonica*†. Casey. 65.  
 — *johnsoni*†. Arnold. 14.  
 — *lithoria*. Melvill and Standen. 298.  
 — *merriami*†. Arnold. 14.  
 — *nenia*. Hedley. 195.  
 — *philotima*. Melvill and Standen. 298.  
 — *renaudi*†. Arnold. 14.  
 — *sesquiertia*. Martens. 291.
- DYAKIA** [Pulmonata].  
 — *smithiana*. Gude. 186.

*Solecortus*, anatomy of certain species.  
**Bloomer**, H. H. J. Malac., London, **10**,  
 1903, (31-40, pl. II).

*Solen* (Linné), classification of British  
 species. **Bloomer**, H. H. l.c. (41-43).

*Solenomorpha* n. gen., *S. major* n. sp.  
 Lancashire. **Hind**, W. London, Q. J.  
 Geol. Soc., **59**, 1903, (334, with fig.).

*Tagelus rufus* Spengler, anatomy.  
**Bloomer**, H. H. J. Malac., London, **10**,  
 1903, (114-121, pl. X).

### Pholadacea.

*Teredo navalis* L. Beitrag zur  
 Kenntnis [des Baues] des Schiffsbohr-  
 wurmes. (Holländisch) **Keer**, P. M.  
 Leiden (P.W.M. Trap), 1903, (58, mit 4  
 Taf.).

*Xylophaga praestans* n. sp. North-  
 umberland. **Smith**, E. A. London,  
 Proc. Malac. Soc., **5**, 1903, (328-330,  
 with figs.).

### Anatinacea.

*Anatina*† nn. spp. Buda limestone,  
 Texas. **Shattuck**, G. B. Washington,  
 D.C., Bull. Dept. Int. U.S., Geol. Surv.,  
 No. **205**, 1903, (9-36, with pl.).

*Buchiola retrostriata* v. Buch mut.  
*pygmaea*† n. mut. **Loomis**, F. B. Al-  
 bany, Univ., N.Y., Bull. St. Mus., No.  
**69**, 1903, (892-920).

*semiimpressa*† n. sp.  
**Deutschland** oberdeutsches. **Drever-**  
**mann**, F. Berlin, Jahrb. geol. Landes-  
 ant., **21**, 1901, Abb. auss. st. Pers.,  
 (193-207).

*Cardiola patinata*† n. sp. Unter-  
 deuten, Maderen a L. **Walther**, K. N.  
 Jahrb. Mus., Stuttgart, Beilage, **17**,  
 1903, (1-58).

*Coniomys*† nn. spp. **Sturm**, F.  
 Berlin, Jahrb. geol. Landesant., **21**,  
 1901, Abb. auss. st. Pers., (39-98).

*Grammysia constricta* Hall mut. *pyg-*  
*maea*† n. mut. **Loomis**, F. B. Albany,  
 Univ., N.Y., Bull. St. Mus., No. **69**,  
 1903, (892-920).

*Homomya*† nn. spp. Buda limestone,  
 Texas. **Shattuck**, G. B. Washington,  
 D.C., Bull. Dept. Int., U.S., Geol. Surv.,  
 No. **205**, 1903, (9-36, with pl.).

*Lyonsia acuta*† n. sp. Tertiary,  
 Florida. **Dall**, W. H. Philadelphia,  
 Pa., Trans. Wagner Free Inst. Sci., **3**,  
 1903, (i-xiv + 1219-1654).

*Pandora* (*Kennerleyia*)† nn. spp. Ter-  
 tiary, Florida. **Dall**, W. H. l.c. (i-xiv  
 + 1219-1654).

(*Kennerlia*) *grandis*†.  
 Neocene. **Rivers**, J. J. Los Angeles,  
 Bull., So. Cal. Acad. Sci., **1**, 1902, (69).

*Pholadomya roemerii*† n. sp. Buda  
 limestone, Texas. **Shattuck**, G. B.  
 Washington, D.C., Bull. Dept. Int., U.S.,  
 Geol. Surv., No. **205**, 1903, (9-36).

*Prothyris truncata*† n. sp. Devo-  
 nian, New York. **Cleland**, H. F.  
 Washington, D.C., U. S. Dept. Int. Bull.  
 Geol. Surv., No. **206**, 1903, (112, with  
 pl.).

### SEPTIBRANCHIATA.

*Cuspidaria*† nn. spp. Tertiary,  
 Florida. **Dall**, W. H. Philadelphia, Pa.,  
 Trans. Wagner Free Inst. Sci., **3**, 1903,  
 (i-xiv + 1219-1654).

*Poromya jamaicensis*† n. sp. Tertiary,  
 Florida. **Dall**, W. H. l.c. (i-xiv +  
 1219-1654).

*Sphenopsis americanus*† n. sp. Ter-  
 tiary, Florida. **Dall**, W. H. l.c. (i-xiv  
 + 1219-1654).

*Verticordia*† nn. spp. Tertiary,  
 Florida. **Dall**, W. H. l.c. (i-xiv +  
 1219-1654).

### SCAPHOPODA.

*Dentalium*† nn. spp. Casey, T. L.  
 Philadelphia, Pa. Proc. Acad. Nat. Sci.,  
**55**, 1903, (261-283).

nn. spp. **Hedley**, C. Port  
 Three Points, N.S.W.  
 Austr. Mus., **4**,  
 figs. 61-62).

**Godwin-Austen**, H. H. On the anatomy of two land molluscs (*Helicarium* (?) *trilleyana* and II (?) *woodworthi* nn. spp.) from New Britain and Lifu, Loyalty Islands, collected by Dr. Arthur Willey, F.R.S., in 1895-97. London, Proc. Malac. Soc., **5**, 1903, (296-299, pl. IX).

**Pace**, S. Critical notes on Hervier's monograph of the *Columbellidae* of New Caledonia with *C. hervieri* nom. nov. J. conchyliol., Paris, **50**, 1902, (412-422).

**Sykes**, E. R. On a small collection of marine shells from Surprise Island. J. Malac., London, **10**, 1903, (137-138).

#### k ARCTIC.

#### kd ISLANDS NORTH OF EUROPE AND ASIA.

**Knipovič** N. M. Zoologische Ergebnisse der russischen Expeditionen nach Spitzbergen. Mollusca und Brachiopoda IV. Nachtrag. St. Petersburg, Ann. Mus. zool. Ac. Sc., **8**, 1903, (133-143).

#### l ATLANTIC.

**Martens**, [Eduard] von. Die Verbreitung der Meer-Conchylien an den Küsten von West- und Süd-Africa. Berlin, SitzBer. Ges. natf. Freunde, **1903**, (188-193).

#### lc SOUTH ATLANTIC.

**Ancey**, C. F. Nouvelles remarques sur les faunes australes du globe. J. conchyliol., Paris, **51**, 1903, (39-47).

#### m INDIAN OCEAN.

#### ma INDIAN OCEAN AND ISLANDS NORTH OF THE EQUATOR.

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**Smith**, E. A. Land and fresh-water mollusca. Fauna of the Maldiv and Laccadive Islands, **1**, (141-145).

Marine Mollusca. *l.c.* **II**, (589-630, pls. XXXV-XXXVI).

#### mb INDIAN OCEAN AND ISLANDS SOUTH OF THE EQUATOR.

**Martens**, [Eduard] von. Ueber einige Schnecken der Cocosinsel. Berlin, SitzBer. Ges. natf. Freunde, **1903**, (59-62).

Die Meeres-Conchylien der Cocos-Insel. *l.c.* (137-141, 253).

#### n PACIFIC.

#### nb SOUTH PACIFIC.

**Ancey**, C. F. Nouvelles remarques sur les faunes australes du globe. J. conchyliol., Paris, **51**, 1903, (39-47).

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#### nd SANDWICH ISLANDS.

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**Dall**, William Healey. A new genus of *Trochidae* [from Hawaii]. [*Stylobates aeneus* n. gen. and sp.] *l.c.* (61-62).

#### ng GALAPAGOS ISLANDS.

**Dall**, William Healey. Two new mollusks from the west coast of America. [*Sigaretus noyesii* n. sp. from Colombia, and *Tonicia arnheimi* n. sp. from Galapagos Islands]. Nautilus, Boston, Mass., **17**, 1903, (37-38).

## 2231 TAXONOMY AND SYSTEMATIC.

### GENERAL.

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**Cossmann, M.** Faune pliocénique de Karikal (Inde française). *J. conchyliol.*, Paris, **51**, 1903, (105-173, av. 4 pl.).

**Dautzenberg, Ph.** Contribution à la faune malacologique terrestre et d'eau douce des îles Obi et Iolo. *Lc.* (5-20, av. 1 pl. et fig.).

**Gariaev, V. P.** Evertebratenfauna des Baikal-Sees. (Russ.) St. Petersburg, *Trd. Troick-Kiacht. Otd. Russ. Geogr. Obsč.*, **V**, 2, 1902, [1903], (27-48, mit 1 Karte).

**Gatliff, J. H.** Additions to the list of Victorian marine Mollusca. [41 species]. *Vict. Nat.*, Melbourne, **20**, 1903, (89-91).

**Hedley, C.** Studies on Australian Mollusca. Part VII. Sydney, N.S.W., *Proc. Linn. Soc. N. S. Wales*, **27**, (1902), 1903, (596-619, with 4 pls.).

**Jacot, E.** Etude sur les mollusques. *Messager Suisse Rom.*, Fribourg, **16**, 1903, (132-133, 140-141, 173-174, 188).

**Kennard, A. S. and Woodward, B. B.** The non-marine mollusca of the River Lea Alluvium at Walthamstow. *Strat.* (N 2-9053)

ford, Essex Nat., **13**, 1903, (13-21, 115-116, with figs.).

**Knipovic, N. M.** Zoologische Ergebnisse der russischen Expeditionen nach Spitzbergen. St. Petersburg, *Ann. Mus. Zool. Ac. Sc.*, **8**, 1903, (133-143).

**Kormos, T.** Paläontologische Mitteilungen. (Ungarisch u. Deutsch) *Földt. Közl.*, Budapest, **33**, 1903, (451-462, 496-500, mit Taf. XIII).

**Lamplugh, G. W. and Walker, J. F.** On a fossiliferous band at the top of the Lower Greensand near Leighton Buzzard (Bedfordshire). London, *Q. J. Geol. Soc.*, **59**, 1903, (234-265, pls. XVI-XVIII, 2 text-figs.).

**Lawensari.** Liste des coquilles recueillies au Val-André (Côtes-du-Nord). *J. conchyliol.*, Paris, **51**, 1903, (29-34).

**Letacq, A. L.** Liste des mollusques recueillis dans les cantons de Frenay et de Saint-Paterne. Mans (le), *Bul. soc. agricult.*, (sér. 2, **30**), **38**, 1901-1902, (136-143).

**Lo Bianco, S.** Le pesche abissali eseguite da F. A. Krupp col yacht Puritan nelle adiacenze di Capri ed in altre località del Mediterraneo. *Mitt. Zool. Stat. Neapel*, Berlin, **16**, 1903, (109-279, mit 3 Taf.).

**Locard, A.** Description de mollusques nouveaux appartenant à la faune souterraine de France et d'Italie. *Bul. Museum*, Paris, **1902**, (608-611, av. fig.).

——— *Notices conchyliologiques.* *Echange*, Lyon, **19**, 1903, (95-96, 101-103, 110-111).

**Loomis, F. B.** The dwarf fauna of the pyrite layer at the horizon of the Tully limestone in western New York [nn. spp. of Brachiopoda, Mollusca and Crustacea]. Albany, Univ., N.Y., *Bull. St. Mus.*, No. **69**, 1903, (892-920, with 5 pls.).

**Loriol, P. de et Girardot, A.** Etude sur les mollusques et brachiopodes de l'Oxfordien supérieur et moyen du Jura lédonien. Première partie. Basel, *Abh. Schweiz. Pal. Ges.*, **29**, 1902, (76 pp., 5 pls., 2 figs.).

**Martens, E. von.** Neue Meer-Conchylien aus den Sammlungen der deutschen Tiefsee-Expedition. (Abdr. aus: Berlin, Sitzber. Ges. natf. Freunde, Jg 1902, N. 9.) Frankfurt a. M., *NachrBl. D. malakozool. Ges.*, **35**, 1903, (97-105).



**Godwin-Austen**, H. H. On the anatomy of two land molluscs (*Helicarium* (?) *villeyana* and *H* (?) *woodworthi* nn. spp.) from New Britain and Lifu, Loyalty Islands, collected by Dr. Arthur Willey, F.R.S., in 1895-97. London, Proc. Malac. Soc., **5**, 1903, (296-299, pl. IX).

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**Sykes**, E. R. On a small collection of marine shells from Surprise Island. J. Malac., London, **10**, 1903, (137-138).

#### k ARCTIC.

#### kd ISLANDS NORTH OF EUROPE AND ASIA.

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#### l ATLANTIC.

**Martens**, [Eduard] von. Die Verbreitung der Meer-Conchylien an den Küsten von West- und Süd-Africa. Berlin, SitzBer. Ges. natf. Freunde, **1903**, (188-193).

#### le SOUTH ATLANTIC.

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#### m INDIAN OCEAN.

#### ma INDIAN OCEAN AND ISLANDS NORTH OF THE EQUATOR.

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**Smith**, E. A. Land and fresh-water mollusca. Fauna of the Maldive and Laccadive Islands, **1**, (141-145).

Marine Mollusca. *l.c.* **II**, (589-630, pls. XXXV-XXXVI).

#### mb INDIAN OCEAN AND ISLANDS SOUTH OF THE EQUATOR.

**Martens**, [Edward] von. Ueber einige Schnecken der Cocosinsel. Berlin, SitzBer. Ges. natf. Freunde, **1902**, (59-62).

Die Meeres-Conchylien der Cocos-Insel. *l.c.* (137-141, 253).

#### n PACIFIC.

#### nb SOUTH PACIFIC.

**Ancey**, C. F. Nouvelles remarques sur les faunes australes du globe. J. conchyliol., Paris, **51**, 1903, (39-47).

Faune malacologique terrestre de l'île des Cocos dans l'Océan Pacifique. *l.c.* (97-104).

#### nd SANDWICH ISLANDS.

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#### ng GALAPAGOS ISLANDS.

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## 2231 TAXONOMY AND SYSTEMATIC.

### GENERAL.

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**Casey, T. L.** Notes on the Conrad collection of fossils, with descriptions of new species. Philadelphia, Pa., *Proc. Acad., Nat. Sci.*, **55**, 1903, (261-283).

**Collinge, W. E.** Contributions to a knowledge of the Mollusca of Borneo. *J. Malac.*, London, **10**, 1903, (79-82, pls. VII, VIII).

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**Dautzenberg, Ph.** Contribution à la faune malacologique terrestre et d'eau douce des îles Obi et Iolo. *Lc.* (5-20, av. 1 pl. et fig.).

**Gariaev, V. P.** Evertebratenfauna des Baikal-Sees. (Russ.) St. Petersburg, *Trd. Troick-Kiacht. Otd. Russ. Geogr. Obsč.*, **V**, 2, 1902, [1903], (27-48, mit 1 Karte).

**Gatliff, J. H.** Additions to the list of Victorian marine Mollusca. [41 species]. *Vict. Nat.*, Melbourne, **20**, 1903, (89-91).

**Hedley, C.** Studies on Australian Mollusca. Part VII. Sydney, N.S.W., *Proc. Linn. Soc. N. S. Wales*, **27**, (1902), 1903, (596-619, with 4 pls.).

**Jacot, E.** Etude sur les mollusques. *Message Suisse Rom.*, Fribourg, **16**, 1903, (132-133, 140-141, 173-174, 188).

**Kennard, A. S. and Woodward, B. B.** The non-marine mollusca of the River Lea Alluvium at Walthamstow. *Strat.* (N 2-9053)

ford, Essex Nat., **13**, 1903, (13-21, 115-116, with figs.).

**Knipovic, N. M.** Zoologische Ergebnisse der russischen Expeditionen nach Spitzbergen. St. Petersburg, *Ann. Mus. Zool. Ac. Sc.*, **8**, 1903, (133-143).

**Kormos, T.** Paläontologische Mitteilungen. (Ungarisch u. Deutsch) *Földt. Közl.*, Budapest, **33**, 1903, (451-462, 496-500, mit Taf. XIII).

**Lamplugh, G. W. and Walker, J. F.** On a fossiliferous band at the top of the Lower Greensand near Leighton Buzzard (Bedfordshire). London, *Q. J. Geol. Soc.*, **59**, 1903, (234-265, pls. XVI-XVIII, 2 text-figs.).

**Lawenzari.** Liste des coquilles recueillies au Val-André (Côtes-du-Nord). *J. conchyliol.*, Paris, **51**, 1903, (29-34).

**Letacq, A. L.** Liste des mollusques recueillis dans les cantons de Frenay et de Saint-Paterne. Mans (le), *Bul. soc. agricult.*, (sér. 2, **30**), **33**, 1901-1902, (136-143).

**Lo Bianco, S.** Le pesche abissali eseguite da F. A. Krupp col yacht Puritan nelle adiacenze di Capri ed in altre località del Mediterraneo. *Mitt. Zool. Stat. Neapel*, Berlin, **16**, 1903, (109-279, mit 3 Taf.).

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——— *Notices conchyliologiques.* *Echange*, Lyon, **19**, 1903, (95-96, 101-103, 110-111).

**Loomis, F. B.** The dwarf fauna of the pyrite layer at the horizon of the Tully limestone in western New York [nn. spp. of Brachiopoda, Mollusca and Crustacea]. Albany, Univ., N.Y., *Bull. St. Mus.*, No. **69**, 1903, (892-920, with 5 pls.).

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#### k ARCTIC.

#### kd ISLANDS NORTH OF EUROPE AND ASIA.

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#### l ATLANTIC.

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#### lc SOUTH ATLANTIC.

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#### m INDIAN OCEAN.

#### ma INDIAN OCEAN AND ISLANDS NORTH OF THE EQUATOR.

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#### n PACIFIC.

#### nb SOUTH PACIFIC.

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## 2231 TAXONOMY AND SYSTEMATIC.

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**Casey, T. L.** Notes on the Conrad collection of fossils, with descriptions of new species. Philadelphia, Pa., *Proc. Acad. Nat. Sci.*, **55**, 1903, (261-283).

**Collinge, W. E.** Contributions to a knowledge of the Mollusca of Borneo. *J. Malac.*, London, **10**, 1903, (79-82, pls. VII, VIII).

**Cossmann, M.** Faune pliocénique de Karikal (Inde française). *J. conchyliol.*, Paris, **51**, 1903, (105-173, av. 4 pl.).

**Dautzenberg, Ph.** Contribution à la faune malacologique terrestre et d'eau douce des îles Obi et Iolo. *Lc.* (5-20, av. 1 pl. et fig.).

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**Gatliff, J. H.** Additions to the list of Victorian marine Mollusca. [41 species]. *Vict. Nat.*, Melbourne, **20**, 1903, (89-91).

**Hedley, C.** Studies on Australian Mollusca. Part VII. Sydney, N.S.W., *Proc. Linn. Soc. N. S. Wales*, **27**, (1902), 1903, (596-619, with 4 pls.).

**Jacot, E.** Etude sur les mollusques. *Messenger Suisse Rom.*, Fribourg, **16**, 1903, (132-133, 140-141, 173-174, 188).

**Kennard, A. S. and Woodward, B. B.** The non-marine mollusca of the River Lea Alluvium at Walthamstow. *Strat.* (N 2-9053)

ford, Essex Nat., **13**, 1903, (13-21, 115-116, with figs.).

**Knipovic, N. M.** Zoologische Ergebnisse der russischen Expeditionen nach Spitzbergen. St. Petersburg, *Ann. Mus. Zool. Ac. Sc.*, **8**, 1903, (133-143).

**Kormos, T.** Paläontologische Mitteilungen. (Ungarisch u. Deutsch) *Földt. Közl.*, Budapest, **33**, 1903, (451-462, 496-500, mit Taf. XIII).

**Lamplingh, G. W. and Walker, J. F.** On a fossiliferous band at the top of the Lower Greensand near Leighton Buzzard (Bedfordshire). London, *Q. J. Geol. Soc.*, **59**, 1903, (234-265, pls. XVI-XVIII, 2 text-figs.).

**Lawenzari.** Liste des coquilles recueillies au Val-André (Côte-du-Nord). *J. conchyliol.*, Paris, **51**, 1903, (29-34).

**Letacq, A. L.** Liste des mollusques recueillis dans les cantons de Frenay et de Saint-Paterne. Mans (le), *Bul. soc. agricult.*, (sér. 2, **30**), **38**, 1901-1902, (136-143).

**Lo Bianco, S.** Le pesche abissali eseguite da F. A. Krupp col yacht Puritan nelle adiacenze di Capri ed in altre località del Mediterraneo. *Mitt. Zool. Stat. Neapel*, Berlin, **16**, 1903, (109-279, mit 3 Taf.).

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——— *Notices conchyliologiques.* *Echange*, Lyon, **19**, 1903, (95-96, 101-103, 110-111).

**Loomis, F. B.** The dwarf fauna of the pyrite layer at the horizon of the Tully limestone in western New York [nn. spp. of Brachiopoda, Mollusca and Crustacea]. Albany, Univ., N.Y., *Bull. St. Mus.*, No. **69**, 1903, (892-920, with 5 pls.).

**Loriol, P. de et Girardot, A.** Etude sur les mollusques et brachiopodes de l'Oxfordien supérieur et moyen du Jura lédonien. Première partie. Basel, *Abh. Schweiz. Pal. Ges.*, **29**, 1902, (76 pp., 5 pls., 2 figs.).

**Martens, E. von.** Neue Meer-Conchylien aus den Sammlungen der deutschen Tiefsee-Expedition. (Abdr. aus: Berlin, Sitzber. Ges. natf. Freunde, Jg 1902, N. 9.) Frankfurt a. M., *NachrBl. D. malakozool. Ges.*, **35**, 1903, (97-105),

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 ——— *eskaldensis*†. Hind. 205.  
 ——— *inequalis*†. Hind. 205.  
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**BAEOLIDIA** [Opisthobranchiata].  
 ——— *major*. Eliot. 137.  
**BARROISICERAS** [Ammonoidea].  
 ——— *haueri*†. Hyatt. 214.  
 ——— *hyatti*†. Shattuck. 391.  
 ——— *teranum*†. Shattuck. 391.  
**BATHYTOMA** [Prosobranchiata].  
 ——— *biconica*. Hedley. 195.  
**BATISSA** [Pelecypoda].  
 ——— *schmidti*. Martens. 290.  
**BELA** [Prosobranchiata].  
 ——— *sanctae-monicae*†. Arnold. 14.  
**BELLEROPHON** [Prosobranchiata].  
 ——— *shelbiensis*†. Clarke and Ruedemann. 78.  
 ——— *sphaericus*†. Walther. 453.  
**BITTIUM** [Prosobranchiata].  
 ——— *quadriceinctum*. Smith. 398.  
 ——— *williamsioni*\*†. Arnold. 14.  
**BOYSIDIA** [Pulmonata].  
 ——— *messageri*. Bavay and Dautzenberg. 27.  
**BUCHIOLA** [Pelecypoda].  
 ——— *semitimpresae*†. Drevermann. 125.  
**BULIMINUS** [Pulmonata].  
 ——— *armenicus*. Naegle. 313.  
 ——— *bagleyi* n. nom. Smith. 405.  
 ——— *burnupi*. Melvill and Ponsonby. 297.  
**BULIMINUS** [Pulmonata].  
 ——— *densicostulatus* var. *elongata* n. var. Smith. 405.  
 ——— *maracandensis*. Rosen. 379.  
 ——— *mistus*. Smith. 405.  
 ——— *prusanus*. Naegle. 313.  
 ——— *rennenkamfi*. Rosen, von. 370.  
**BULIMULUS** [Pulmonata].  
 ——— *blanfordianus*. Ancey. 8.  
 ——— *nubilus*. Preston. 363.  
**BYTHINELLA** [Prosobranchiata].  
 ——— *padiraci*. Locard. 265.  
**CAECILIANELLA** [Pulmonata].  
 ——— *retleri*. Rosen. 379.  
**CAECUM** [Prosobranchiata].  
 ——— *lilianum*. Hedley. 193.  
**CALLIOSTOMA** [Prosobranchiata].  
 ——— *granoliratum*. Sowerby. 410.  
 ——— *iridescent*. Sowerby. 410.  
 ——— *perfragile*. Sowerby. 410.  
 ——— *thrincoma*. Melvill and Standen. 298.  
**CALLISTA** [Pelecypoda].  
 ——— *subdiaphana* var. *pedroana*† n. var. Arnold. 14.  
**CALLOCARDIA** [Pelecypoda].  
 ——— *gatumensis*†. Dall. 106.  
 ——— *sincera*†. Dall. 106.  
**CALLOCHITON** [Amphineura].  
 ——— *sublaevis*. Sykes. 435.  
**CAMPELOMA** [Prosobranchiata].  
 ——— *harloutonensis*†. Stanton. 412.  
**CAMPYLAEA** [Pulmonata].  
 ——— *riedermayeri*. Kobelt. 380.  
 ——— : *phalerata* n. subsp. Rossmassler. 380.  
**CANCELLARIA** [Prosobranchiata].  
 ——— *lusciniina*. Melvill and Standen. 298.  
 ——— *producta*. Sowerby. 410.  
**CARDIOLA** [Pelecypoda].  
 ——— *pectinata*†. Walther. 453.  
**CARDIOPODA** [Heteropoda].  
 ——— *richardi*. Vayssières. 449.  
**CARDITA** [Pelecypoda].  
 ——— *abbreviata*. Sowerby. 408.  
 ——— *aldrichi*†. Casey. 85.  
 ——— *catharia*†. Dall. 106.  
 ——— *chaylai*†. Meunier. 301.  
 ——— *prestoni*†. Dall. 106.

- CARDITA** [Pelecypoda].  
 — *sulcosa*†. Dall. 105.  
 — *tegea*†. Dall. 106.  
 — *vaughani*†. Dall. 106.
- CARDIUM** [Pelecypoda].  
 — *budaense*†. Shattuck. 391.  
 — *levisulcatum*. Smith. 400.  
 — *vaughani*†. Shattuck. 391.
- CARINARIA** [Heteropoda].  
 — *grimaldi*. Vayssière. 449.
- CARSTENIA**† n. gen. [Ammonoidea].  
 — Hyatt. 214.  
 — *tuberculata*†. Hyatt. 214.
- CARYCHIUM** [Pulmonata].  
 — *fischeri*†. Boettger. 49.
- CASSIS** [Prosobranchiata].  
 — *microstoma*. Martens. 291.
- CATAULUS** [Prosobranchiata].  
 — *connectens*. Fulton. 160.  
 — *greeni* var. *robusta* n. var.  
 — Fulton. 160.
- CATHAICA** [Pulmonata].  
 — *futtereri*. Andreae. 12.  
 — *holdereri*. Andreae. 12.  
 — *ohlmeri*. Andreae. 12.  
 — *subtilistriata*. Andreae. 12.
- CERASTUS** [Pulmonata].  
 — *amaliae*. Kobelt. 241.  
 — *carolienis*. Kobelt. 241.  
 — *dinshawi*. Sykes. 427.  
 — *ellerbecki*. Kobelt. 241.  
 — *moellendorffi*. Kobelt. 241.
- CERATOPHYLLIDIA** n. gen. [Opisthobranchiata]. Eliot. 137.  
 — *africana*. Eliot. 137.
- CERBERILLA** [Opisthobranchiata].  
 — *africana*. Eliot. 137.
- CERITHIUM** [Prosobranchiata].  
 — *tezanum*†. Shattuck. 391.  
 — *cerecundum*. Melvill and Standen. 298.  
 — *zebrum* var. *attenuata* n. var.  
 — Vignal. 450.  
 — var. *bilineata* n.  
 — var. Vignal. 450.  
 — var. *cinerea* n.  
 — var. Vignal. 450.  
 — var. *dilecta* n.  
 — var. Vignal. 450.  
 — var. *maculata* n.  
 — var. Vignal. 450.  
 — var. *multimaculata* n. var. Vignal. 450.  
 — var. *nirea* n. var.  
 — Vignal. 450.
- CERITHIUM** [Prosobranchiata].  
 — *zebrum* var. *ornata* n. var.  
 — Vignal. 450.  
 — var. *pulchra* n.  
 — var. Vignal. 450.  
 — var. *rosea* n. var.  
 — Vignal. 450.  
 — var. *sticta* n. var.  
 — Vignal. 450.  
 — var. *trifasciata*  
 — n. var. Vignal. 450.  
 — var. *trilineata* n.  
 — var. Vignal. 450.  
 — var. *unimaculata*  
 — n. var. Vignal. 450.
- CEROMYA** [Pelecypoda].  
 — *isocardiodes*†. Sturm. 422.
- CHAETODERMA** [Amphineura].  
 — *challengeri*. Nierstrasz.  
 — 316.  
 — *normanni*. Nierstrasz. 316.
- CHAMA** [Pelecypoda].  
 — *caloosana*†. Dall. 106.  
 — *chipolana*†. Dall. 106.  
 — *draconis*†. Dall. 106.  
 — *lyelli*†. Dall. 106.  
 — *tampaensis*†. Dall. 106.
- CHARTONIA** [Ammonoidea].  
 — *costigera*†. Buckman. 60.
- CHELIDONURA** [Opisthobranchiata].  
 — *hirundinina* var. *punctata* n.  
 — var. Eliot. 138.  
 — *philinopsis*. Eliot. 138.  
 — *varians*. Eliot. 138.
- CHIONE** [Pelecypoda].  
 — *ballista*†. Dall. 106.  
 — *craspedonia*†. Dall. 106.  
 — *erosa*†. Dall. 106.  
 — *glyptocyma*†. Dall. 106.  
 — *hendersonii*†. Dall. 106.  
 — *rhodia*†. Dall. 106.  
 — *spada*†. Dall. 106.  
 — *victoria*†. Dall. 106.  
 — *zeata*†. Dall. 106.
- CHITON** [Amphineura].  
 — *sykesi*. Sowerby. 410.
- CHLORITIS** [Pulmonata].  
 — *bracteatus*. Pilsbry. 346.  
 — *echizenensis*. Pilsbry and Hirase. 358.  
 — *romaensis*. Möllendorff, von.  
 — 306.  
 — *tabularis*. Gude. 186.  
 — *tosanus*. Pilsbry and Hirase.  
 — 359.

**Choffaticeras**† n. gen. [Ammonoidea].  
Hyatt. 214.

**CHONDROCYCLUS** [Prosobranchiata].  
—— *exsertus*. Melvill and Pon-  
sonby 297.

**CIRROTEUTHIS** [Dibranchiata].  
—— *grimaldii*. Joubin. 222.  
—— *richardi*. Joubin. 222.

**CLANCULUS** [Prosobranchiata].  
—— *gemmulifer* var. *pallidus* n.  
var. Pilsbry. 354.  
—— *mixtus*. Smith. 398.

**CLATHURELLA** [Prosobranchiata].  
—— *louei*. Dall. 103a.  
—— *opaimathes*. Melvill and  
Standen. 298.  
—— *quisquilia*. Melvill and  
Standen. 298.  
—— *sykesii*. Melvill and Stan-  
den. 298.

**CLAUSILIA** [Pulmonata].  
—— *aenea*. Pilsbry. 344.  
—— *aratorum*. Pilsbry. 344.  
—— *auregani*. Bavay and Daut-  
zenberg. 27.  
—— *bilabrata* var. *tosaensis* n.  
var. Pilsbry. 344.  
—— *dubia* var. *trazleri* n. var.  
Csiki. 101.  
—— ——— var. *paszlowczyi*  
n. var. Csiki. 101.  
—— *echigoensis*. Pilsbry. 344.  
—— *filialis*. Martens. 290.  
—— *japonica* var. *perstriata* n.  
var. Pilsbry. 344.  
—— *millenaris*. Csiki. 101.  
—— *narzanensis*. Rosen. 379.  
—— *platyderula*. Pilsbry. 344.  
—— *sadoensis*. Pilsbry. 344.  
—— *shikokuensis* var. *inoku-*  
*chiensis* n. var. Pilsbry.  
344.  
—— *stauropolitana*. Rosen von.  
379.  
—— *sua*. Pilsbry. 344.

**CLIONE** [Pteropoda].  
—— *punctata*. Tesch. 438.

**CLIONOPSIS** [Pteropoda].  
—— *microcephalus*. Tesch. 438.

**CLYMENIA** [Ammonoidea].  
—— *kayseri*†. Drevermann. 125.

**COCCULINA** [Prosobranchiata].  
—— *laevis*. Thiele. 291.  
—— *meridionalis*. Hedley. 195.  
—— *radiata*. Thiele. 291.

**Cochlespirella**† n. gen. [Prosobran-  
chiata]. Casey. 65.

**COCHLOSTYLA** [Pulmonata].  
—— *delicata*. Fulton. 160.

**CODAKIA** [Pelecypoda].  
—— *chipolana*†. Dall. 106.  
—— *erosa*†. Dall. 106.  
—— *magnoliana*. Dall. 106.  
—— *pertenera*†. Dall. 106.  
—— *spinulosa*†. Dall. 106.  
—— *rendryesi*†. Dall. 106.

**Coelidium**† n. nom. [Prosobran-  
chiata]. Clarke and  
Ruedemann. 78.

**Collopoceras**† n. gen. [Ammonoidea].  
Hyatt. 214.  
—— *colleti*†. Hyatt. 214.  
—— *grossouvrei*†. Hyatt. 214.  
—— *novimexicanum*†. Hyatt.  
214.  
—— *springeri*†. Hyatt. 214.

**COLLINGEA** [Pulmonata].  
—— *eranna*. Collinge. 87.

**COLLONIA** [Prosobranchiata].  
—— *bicarinata*. Martens von.  
285.

**COLOBOSTYLUS** [Prosobranchiata].  
—— *nutii*. Pilsbry.

**COLUMBELLA** [Prosobranchiata].  
—— *calliope*. Melvill. 295.  
—— *hermieri* n. nom. Pace.  
328.  
—— *minima*†. Arnold. 14.  
—— *oldroyi*†. Arnold. 14.  
—— *seychellarum*. Martens. 291.  
—— *solidula* var. *praeursor*† n.  
var. Arnold. 14.

**CONOCARDIUM** [Pelecypoda].  
—— *beushauseni*†. Drevermann.  
125.

**CONULARIA** [Pteropoda].  
—— *fimbriata*†. Walther. 453.

**CONULINUS** [Pulmonata].  
—— *tener*. Kobelt. 243.

**CONUS** [Prosobranchiata].  
—— *boubéae*. Sowerby. 409.  
—— *eucoronatus*. Sowerby. 410.  
—— *gilchristi*. Sowerby. 410.  
—— *patens*. Sowerby. 410.  
—— *scopularia*. Casey. 65.

**COPTOCHEILUS** [Prosobranchiata].  
—— *perakensis*. Fulton. 160.

- CORBULA** [Pelecypoda].  
 — *laqueata*†. Casey. 65.  
 — *muschketoui*†. Böhm.  
 — *rugifera*. Smith. 398.
- CRASSATELLITES** [Pelecypoda].  
 — *acutus*†. Dall. 106.  
 — *bourdenensis*†. Dall. 106.  
 — *chipolanus*†. Dall. 106.  
 — *duplinianus*†. Dall. 106.  
 — *jamaicensis*†. Dall. 106.  
 — *tanicus*†. Dall. 106.  
 — *triangulatus*†. Dall. 106.
- CROSSEA** [Prosobranchiata].  
 — *carinata*. Hedley. 195.
- CRYPTOPHTHALMUS** [Opisthobranchiata].  
 — *minikoensis*. Smith. 400.
- CUCULLAEA** [Pelecypoda].  
 — *teichmulleri*†. Sturm. 422.
- CUSPIDARIA** [Pelecypoda].  
 — *craspedonia*†. Dall. 106.  
 — *distira*†. Dall. 106.
- CYATHODONTA** [Pelecypoda].  
 — *guadalupensis*†. Dall. 106.  
 — *spenceri*†. Dall. 106.  
 — *vicksburgiana*†. Dall. 106.
- CYATHOPOMA** [Prosobranchiata].  
 — *peilei*. Preston. 364.  
 — *serendibense*. Preston. 364.
- CYCLINELLA** [Pelecypoda].  
 — *gatumensis*†. Dall. 106.
- CYCLOSTREMA** [Prosobranchiata].  
 — *annellarium*. Melvill and Standen. 298.  
 — *euchilopteron*. Melvill and Standen. 298.  
 — *henjamense*. Melvill and Standen. 298.  
 — *prominulum*. Melvill and Standen. 298.  
 — *semisculptum*. Martens. 291.  
 — *supremum*. Melvill and Standen. 298.
- CYCLOTUS** [Prosobranchiata].  
 — *bicolor*. Martens. 290.  
 — *perampelas*. Martens. 290.
- CYLICHA** [Opisthobranchiata].  
 — *bizona*. Melvill and Standen. 298.  
 — *jecoralis*. Melvill and Standen. 298.  
 — *protumida*. Hedley. 195.  
 — *thetidis*. Hedley. 195.
- Cymatocyclus**\*† n. subgen. [Pelecypoda].  
 — Dall. 103.
- CYMBULIA** [Pteropoda].  
 — *sibogae*. Tesch. 438.
- CYMBULIOPSIS** [Pteropoda].  
 — *intermedia*. Tesch. 438.
- CYPRAEA** [Prosobranchiata].  
 — *asellus* var. *bitaeniata* n. var. Geret. 164.  
 — *caurica* var. *pallida* n. var. Dautzenberg. 114.  
 — *clandestina* monstr. *marteli*. Dautzenberg. 114.  
 — *cribraria* monstr. *rostrata*. Dautzenberg. 114.  
 — *eglantina* var. *pallida* n. var. Dautzenberg. 114.  
 — *errones* var. *albida* n. var. Dautzenberg. 114.  
 — — var. *pallidior*. n. var. Dautzenberg. 114.  
 — — monstr. *compressa*. Dautzenberg. 114.  
 — *fulloni*. Sowerby. 410.  
 — *neglecta* monstr. *marteli*. Dautzenberg. 114.  
 — *poraria* var. *insignis* n. var. Dautzenberg. 114.  
 — *staphylaea* monstr. *deprata*. Dautzenberg. 114.  
 — *vitellus* monstr. *subrostrata*. Dautzenberg. 114.  
 — *walkeri* var. *rossiteri* n. var. Dautzenberg. 114.  
 — *ziczac* var. *decolorata* n. var. Dautzenberg. 114.
- CYRENA** [Pelecypoda].  
 — *dupliniana*†. Dall. 106.
- CYRTOCERAS** [Nautiloidea].  
 — *bovinum*†. Clarke and Ruedemann. 78.
- CYRTORHIZOCERAS** [Nautiloidea].  
 — *curvicameratum*†. Clarke and Ruedemann. 78.
- CYTHARA** [Prosobranchiata].  
 — *elegantissima*. Melvill and Standen. 298.
- CYTHEREA** [Pelecypoda].  
 — *caesarina*†. Dall. 106.  
 — *glypteoconcha*†. Dall. 106.  
 — *shepardi*†. Dall. 106.  
 — *ucuttana*†. Dall. 106.  
 — *willcoxi*†. Dall. 106.
- DAMAYANTIA** [Pulmonata].  
 — *minima*. Collinge. 88.  
 — *rugosa*. Collinge. 87.  
 — *simrothi*. Collinge. 87.



**Subpulchellia**† n. gen. [Ammonoidea].

Hyatt. 214.

— *castellanensis*†. Hyatt. 214.**Subtissotia**† n. gen. [Ammonoidea].

Hyatt. 214.

— *peroni*†. Hyatt. 214.**SUBULINA** [Pulmonata].— *dohertyi*. Smith. 402.— *uncta*. Smith. 402.**SUCCINEA** [Pulmonata].— *pfeifferi* var. *albida* n. var.

Germain. 165.

— — var. *rubella* n. var.

Germain. 165.

— *sokotrensis*. Smith. 405.— — var. *euryomphala*

n. var. Smith. 405.

**SURCULA** [Prosobranchiata].— *exstructa*. Martens. 291.**Sylvanocochlis** n. gen. [Prosobranchiata].

Melvill. 296.

**SYNCYCLOMENA** [Pelecypoda].— *carboniferum*†. Hind. 205.**SYRNOLA** [Prosobranchiata].— *macrocephala*. Hedley. 195.— *musandamica*. Melvill and Standen. 298.**Tegoceras**† n. gen. [Ammonoidea].

Hyatt. 214.

**TELLINA** [Pelecypoda].— *consanguinea*. Sowerby. 408.— *pilsbryi*†. Casey. 65.**TEREBRA** [Prosobranchiata].— *casta* var. *natalensis* n. var.

Smith. 398.

— *helichrysum*. Melvill and

Standen. 298.

— *loiseae*. Smith. 398.**THALOTIA** [Prosobranchiata].— *maldivensis*. Smith. 400.**THERSITES** [Pulmonata].— *meridionalis*. Gude. 184.**THORDISA** [Opisthobranchiata].— *crosslandi*. Eliot. 137.— *stellata*. Eliot. 137.**TISSOTIA** [Ammonoidea].— *globosa*†. Hyatt. 214.**Tolypeceras**† n. gen. [Ammonoidea].

Hyatt. 214.

**TIVELA** [Pelecypoda].— *jamaicensis*†. Dall. 106.**TONICIA** [Pelecypoda].— *arnheimi*. Dall. 108.— *pectinoides*. Sykes. 435.**TORNATELLINA** [Pulmonata].— *abbreviata*. Ancey. 11.— *biolleyi*. Martens. 281.— *cincla*. Ancey. 11.— *fusca*. Ancey. 11.— *henshawi*. Ancey. 11.— *kitairojimana*. Pilsbry and

Hirase. 361.

— *macromphala*. Ancey. 11.— *macroptychia*. Ancey. 11.— *procerula*. Ancey. 11.— *pyramidata*. Ancey. 11.— *subangulata*. Ancey. 11.— *terebra*. Ancey. 11.**TORNATINA** [Opisthobranchiata].— *exserta*. Hedley. 195.**TRACHYOYSTIS** [Pulmonata].— *centrifuga*. Melvill and

Ponsonby. 297.

— *glebaria*. Melvill and

Ponsonby. 297.

— *laticostata*. Melvill and

Ponsonby. 297.

— *oriena*. Melvill and

Ponsonby. 297.

— *patera*. Melvill and

Ponsonby. 297.

— *permeata*. Melvill and

Ponsonby. 297.

— *scelopendra*. Melvill and

Ponsonby. 297.

— *simplex*. Melvill and

Ponsonby. 297.

**TRANSENNELLA** [Pelecypoda].— *caloosana*†. Dall. 106.— *carolinensis*†. Dall. 106.— *chipolana*. Dall. 106.— *santarosana*†. Dall. 106.— *utica*†. Dall. 106.**TRICHOTROPIS** [Prosobranchiata].— *pulcherrima*. Melvill and

Standen. 298.

**TRIFORIS** [Prosobranchiata].— *abnormalis*. Sowerby. 408.— *excellens*. Smith. 400.— *gracilior*. Smith. 400.— *lilaceocinctus*. Smith. 400.— *pura*. Smith. 400.**TRIGONIA** [Pelecypoda].— *crenulata* var. *peruana*† n.

var. Paulcke. 334.

— *glaciana*†. Sturm. 422.— *molenegraaffi*. Newton. 315.— *nepos*†. Paulcke. 334.— *progonos*†. Paulcke. 334.

- TRIPHORA** [Prosobranchiata].  
 — *albotittata*. Hedley. 193.  
 — *ampulla*. Hedley. 193.  
 — *cinerea*. Hedley. 193.  
 — *innotabilis*. Hedley. 193.  
 — *kesteveni*. Hedley. 193.  
 — *maculosa*. Hedley. 193.  
 — *nocturna*. Hedley. 193.  
 — *regina*. Hedley. 193.
- TRIPPA** [Opisthobranchiata].  
 — *monsoni*. Eliot. 137.
- TRISHOPLITA** [Pulmonata].  
 — *lischkeana* var. *hizenensis* n. var. Pilsbry and Hirase. 359.  
 — *mesogonia* var. *shikokuensis* n. var. Pilsbry and Hirase. 359.
- TRITONIDEA** [Prosobranchiata].  
 — *souceryana*. Melvill and Standen. 298.
- TRIVIA** [Prosobranchiata].  
 — *ritteri*. Raymond. 379.
- TROCHOMORPHA** [Pulmonata].  
 — *subternata*. Dautzenberg. 116.  
 — *ternatana* var. *subternatana* n. var. Dautzenberg. 115.
- TROPHON** [Prosobranchiata].  
 — *ceritensis*†. Arnold. 14.  
 — *pedroana*†. Arnold. 14.  
 — *simplex*. Hedley. 195.  
 — *stuarti* var. *præcursor*† n. var. Arnold. 14.
- Tropidocyclus**\*† n. subgen. [Pelecypoda].  
 Dall. 103.
- TROPIDOPHORA** [Prosobranchiata].  
 — *comburens*. Melvill and Ponsoby. 297.  
 — *perfecta*. Fulton. 160.  
 — *plurilirata*. Fulton. 160.
- TUDICLA** [Prosobranchiata].  
 — *beushauseni*†. Wollemaun. 466.  
 — *subcarinata*†. Sturm. 422.
- TURBONILLA** [Prosobranchiata].  
 — *adleri*† n. sp. Dall and Bartsch. 14.  
 — *arnoldi*†. Dall and Bartsch. 14.  
 — *auricoma*† n. sp. Dall and Bartsch. 14.  
 — *latifundia*† n. sp. Dall and Bartsch. 14.
- TURBONILLA** [Prosobranchiata].  
 — *louei*† n. sp. Dall and Bartsch. 14.  
 — — var. *pedroana*† n. var. Dall and Bartsch. 14.  
 — *pentalopha*† n. sp. Dall and Bartsch. 14.  
 — *similans*. Smith. 398.  
 — *stearnsi*† n. sp. Dall and Bartsch. 14.
- TURRITELLA** [Prosobranchiata].  
 — *budaensis*†. Shattuck. 391.
- TYPRIS** [Prosobranchiata].  
 — *syrringianus*. Hedley. 195.  
 — *transcurrens*. Martens. 285.
- UMBRACULUM** [Opisthobranchiata].  
 — *elevatum*†. Aldrich. 1.
- Uncinia** n. gen. [Amphineura].  
 Nierstrasz. 316.  
 — *neapolitana*. Nierstrasz. 316.
- UNIO** [Pelecypoda].  
 — *aesopiformis*†. Whitfield. 460.  
 — *brianti*. Dautzenberg. 117.  
 — *brouni*†. Whitfield. 460.  
 — *douglassi*†. Stanton. 412.  
 — *farri*†. Stanton. 412.  
 — *percorrugata*†. Whitfield. 460.  
 — *postbiplicata*†. Whitfield. 460.  
 — *retusoides*†. Whitfield. 460.  
 — *verrucosiformis*†. Whitfield. 460.
- VALVATA** [Prosobranchiata].  
 — *stelleri*. Dybovskij. 133.
- VENERICARDIA** [Pelecypoda].  
 — *armilla*. Dall. 105.  
 — *bulli*†. Dall. 106.  
 — *californica*†. Dall. 106.  
 — *carsonensis*†. Dall. 106.  
 — *greggiana*†. Dall. 106.  
 — *gouldi*. Dall. 105.  
 — *hadra*†. Dall. 106.  
 — *himerta*†. Dall. 106.  
 — *incisa*. Dall. 105.  
 — *moniliata*. Dall. 105.  
 — *nasuta*†. Dall. 106.  
 — *ocaris*†. Dall. 106.  
 — *præcisa*†. Dall. 106.  
 — *scitula*†. Dall. 106.  
 — *simplex*†. Dall. 106.  
 — *tellia*†. Dall. 106.  
 — *vicksburgensis*†. Casey. 65.

- VENERICARDIA [Pelecypoda].  
 ——— *vicksburgiana*†. Dall. 106.  
 ——— *wilcozensis*†. Dall. 106.
- VENUS [Pelecypoda].  
 ——— *nec clathrata*† n. nom. Dollfus.  
           124.  
 ——— *audetica*†. Sturm. 422.
- VERNETUS [Prosobranchiata].  
 ——— *waitiei*. Hedley. 195.
- VERTICORDIA [Pelecypoda].  
 ——— *bowdenensis*†. Dall. 106.  
 ——— *cossmanni*†. Dall. 106.  
 ——— *jamaicensis*†. Dall. 106.
- VITREA [Pulmonata].  
 ——— *capsella* var. *lacteodens* n.  
           var. Pilsbry. 343.  
 ——— *rogersi*. Woodward. 473.
- VIVIPARUS [Prosobranchiata].  
 ——— *montanaensis*†. Stanton.  
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 ——— *anomala*. Martens. 285.  
 ——— *dohrni*. Sowerby. 409.  
 ——— *epigona*. Martens. 291.  
 ——— *planicostata*. Sowerby. 409.
- VOLVULA [Opisthobranchiata].  
 ——— *flavotincta*. Martens. 291.  
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- WAAGENOCERAS [Ammonoidea].  
 ——— *hilli*†. Smith. 406.
- XENODISCUS [Ammonoidea].  
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           385.
- Xerocathalca n. subgen. [Pulmonata].  
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 ——— *rugosissima*. Möllendorff.  
           306.
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 ——— *praestans*. Smith. 397.
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- ZONITOIDES [Pulmonata].  
 ——— *cupido*. Melvill and  
           Ponsonby. 297.

## 2403-2431 ARTHROPODA.

## TITLES.

- Adelung, N. v. Semenov, A. P.**
- Andreas, Eugen.** Inwiefern werden Insekten durch Farbe und Duft der Blumen angezogen? Bot. Centralbl., Jena, Beihefte, **15**, 1903, (427-470). [2419]. 1
- Bachmetjew, P.** Bevorstehende Untersuchungen für Entomologen. Ent. Jahrb., Leipzig, **12**, 1903, (103-107). [2423]. 2
- Ein Versuch die Frage über die Parthenogenese der Drohnen mittels der analytisch-statistischen Methode zu lösen. Allg. Zs. Ent., Neudamm, **8**, 1903, (37-44). [4611 4631 2423]. 3
- Banks, Nathan.** Principal insects liable to be distributed on nursery stock. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **34**, 1902, (46). 23 cm. [0060 2403]. 4
- An index to bulletins Nos. 1-30 (New Series) (1896-1901) of the division of entomology. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.) No. **36**, 1902, (64). 25 cm. [0030 2403]. 5
- Barrett.** Habits and mimicry. Ent. Mag., London, **39**, 1903, (170). [2419]. 6
- Bauer, Victor.** Zur inneren Metamorphose des Centralnervensystems der Insecten. (Vorläuf. Mitt.) Zool. Anz., Leipzig, **26**, 1903, (655-656). [2415]. 7
- Bergroth, E. v. Semenov, A. P.**
- Blaisdell, F. E.** The three Californias. [Three faunal areas of California.] Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (173-175). [0227 gi 2427 gi]. 8
- Börner, Carl.** Kritische Bemerkungen über einige vergleichend-morphologische Untersuchungen K. W. Verhoeff's. Zool. Anz., Leipzig, **26**, 1903, (290-315). [2407]. 9
- Ueber die Gliederung der Laufbeine der *Atelocerata* Heymons. Berlin, SitzBer. Ges. natf. Freunde, **1902**, (205-229, mit 2 Taf.). [2407]. 10
- Die Mundgliedmassen der Opisthogoneata. Berlin, SitzBer. Ges. natf. Freunde, **1903**, (58-74, mit 7 Taf.). [2407]. 11
- Die Beingliederung der Arthropoden. (3. Mitt. Die Cheliceraten, Pantopoden und Crustaceen betr.). Berlin, SitzBer. Ges. natf. Freunde, **1903**, (292-341, mit 7 Taf.). [2407]. 12
- Bradley, J. Chester.** Vernacular names again. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (26). [0070 2403]. 13
- Britton, W. E.** First report of the state entomologist. Agric. Exp. Sta., Connecticut, New Haven, Rep., **1901**, Pt. 3, 1901, (227-278, with 11 pls., 2 figs.); [review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta., Rec., **14**, 1902, (63). [2403]. 14
- Brues, Charles Thomas v. Melander, Axel Leonard.**
- Burkhill, I. H. v. Willis, J. E.**
- C[alvert], P. P.** Five years' observations and experiments on the bionomics of South African insects by Guy A. Marshall. [Review] Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (91-96). [2419 2427 fg]. 15
- Carpenter, G. H.** On the relationships between the classes of Arthropoda.

- Dublin, Proc. R. Irish Acad., **24**, 1903, (320-360); [abstract], London, J. R. Microsc. Soc., **1904**, (178). [0231 0207 2431 3007 2807 2831]. 16
- Candell**, A. N. Notes on Colorado insects. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **38**, 1902, (35-38). [0060 2427 gi]. 17
- Chapman**. [Imago produced by a parasitised lava.] London, Proc. Ent. Soc., **1903**, (31). [2419]. 18
- Chittenden**, F[rank] H[urlbut]. Some insects injurious to the violet, rose and other ornamental plants: A collection of articles dealing with insects of this class. [Rev. Ed.] Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **27**, 1901, (114, with pl.). [0060 2419]. 19
- Insects and the weather during the season of 1900. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **30**, 1901, (63-75). [2411]. 20
- Some insects injurious to vegetable crops. A series of articles dealing with insects of this class. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **33**, 1902, (117). [0060 2403]. 21
- Chobaut**, A. Les insectes du biscuit de troupe. Moyen de préservation. Paris, C.-R. cong. soc. sav. en 1902, **1903**, (102-107). [2419 0060]. 22
- Čičerin**, T. v. Semenov, A. P.
- Claybrooke**, J. de. Note sur quelques insectes du Tonkin provenant des environs d'Hanoi. Bul. Muséum, Paris, **1903**, (132-133). [2431 2427 ed]. 23
- Comstock**, G. F. A list of Lepidoptera found in the Adirondack Mts. [with list of other insects]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (197-200). [2427 4427 gg]. 24
- Cook**, Melville Thurston. Galls and insects producing them. Parts 3, 4 and 5. Ohio Nat., Columbus, **3**, 1903, (419-436); [reprint], Columbus, Ohio, Univ. Bull., (Ser. 7), No. **20**. 23.2 cm. [2419]. 25
- Coquillett**, D. W. Some insects of the Hudsonian zone in New Mexico. Diptera. Psyche, Cambridge, Mass., **9**, 1901, (149-150). [4227 gi 4231 2427 gi]. 26
- Crevecoeur**, F. F. Some entomological notes [for collectors]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (47-50). [2403]. 27
- Darwin**, F. A Naturalist's Calendar kept at Swaffham Bulbeck, Cambridgeshire, by Leonard Blomefield (formerly Jenyns). Cambridge, 1903, (xviii+84). [Review], Nature, London, **68**, 1903, (389). [2403 0030]. 28
- Davis**, K. C. v. Needham, J. G.
- Deegener**, F[aul]. Zur postembryonalen Entwicklung des Insectendarms. Zool. Anz., Leipzig, **28**, 1903, (547-550). [2415]. 29
- Deventer**, W. van. Insektenier, welke oft auf Zuckerrohr angetroffen werden. (Holländisch) Arch. Java Suiker., Soerabaia, **11**, 1903 (437-446, 2 Taf.). [2419 2431 3019 3031], 30
- Diederichs**, K. Die Photographie lebender Insekten. Apollo, Dresden, **9**, 1903, (74-77); Entgegnung darauf v. Arth. Glaser, L.c. (127-128). [2403]. 31
- Distant**, W. L. Animal sense perceptions. Zoologist, London, (Ser. 4), **6**, 1902, (161-178). [2419 6019 5819 4419]. 32
- Dominikiewicz**, Mieczysław. Les chenilles des insectes comme parasites accidentels de l'homme. D'après le Dr Erich Peiper. (Polonaise) Zdrowie, Warszawa, **19**, 1903, (1070-1092). [2419]. 33
- Doncaster**. Varieties confined to one sex. Ent. Rec., London, **15**, 1903, (237). [2423]. 34
- Duboscq**, O. v. Léger, L.
- Enderlein**, Günther. Die Landarthropoden der von der Tiefsee-Expedition besuchten antarktischen Inseln. I. Die Insekten und Arachnoideen der Kerguelen. II. Die Landarthropoden der antarktischen Inseln St. Paul und Neu-Amsterdam. (Wissenschaftliche Ergebnisse der deutschen Tiefsee-Expedition. Bd 3, Lfg 7.) Jena, 1903, (197-270, mit 10 Taf.). 35 cm. [2427 oc mb 2431 3631 4231 4431]. 35
- Faas**, H[enri]. Sur quelques insectes nuisibles au printemps. Insectes nuisibles aux arbres fruitiers. Chron. Agric., Lausanne, **15**, 1902, (189-195, 297-305, 449-459, 521-532, av. 18 figs.). [2419]. 36

**Faas, H[enri].** L'acide prussique gazeuse dans la lutte contre les insectes. Lausanne, Bull. Soc. Sci. Nat., (sér. 4), **39**, 1903, (65-82); Arch. Sci., Phys., Genève, (sér. 4), **15**, 1903, (678-679). [2403]. 37

**Felt, E[phraim] P[orter].** Observations on forest and shade tree insects in New York State. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **31**, 1902, (63-68). [2403]. 39

—— Aquatic insects of the Saranac region. New York, Forest Fish. Game Com. Rep. Albany, **1900**, 1901, (499-531, with col. pl.). [2427 *gg*]. 40

**Fernald, H[enry] T[orsey].** How shall we arrange our collections? Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (108-110). [2403]. 41

—— v. Fernald, C. H.

**Fernald, C. H. and Fernald, H[enry] T[orsey].** [Insects prevalent in Massachusetts in 1901]. Agric. Exp. Sta., Massachusetts, Amherst, Rep., **1901**, (86-88). [2427 *gg*]. 42

**Fletcher, James.** Injurious insects of the year in Canada. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., No. **40**, 1903, (78-83). [2403]. 43

**Friese, H.** Neue Zeiss - Lupen. Allg. Zs. Ent., Neudamm, **8**, 1903, (267-268). [2403]. 44

**Frühlich.** Ueber das Vorkommen von *Pachytulus cinerascens* Fieb. und anderer Insekten bei Kahl am Main. Berliner ent. Zs., **48**, 1903, (146-148). [2427 *de* 3831]. 45

**Froggatt, Walter W.** Insects that damage wheat and other foodstuffs. Agric. Gaz., Sydney, N.S.W., **14**, 1903, (481-492, 1 pl.). [2419]. 46

—— Insectarium notes, and insects found about the Hawkesbury College. Agric. Gaz., Sydney, N.S.W., **14**, 1903, (1019-1027, with 2 pls. and 1 text fig.). [2419]. 47

**Fry, Sir E.** [Letter] on natural selection. Nature, London, **67**, 1903, (414). Cf. Galton, *ib.*, (343). [0223 2423]. 48

**Garman, H[arrison].** Enemies of cucumbers and related plants. Agric. Exp. Sta., Kentucky, Lexington, Bull. No. **91**, 1901, (3-48, with 3 pls., 10 figs.);

[review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., **13**, 1901, (368-369). [2403]. 49

**Gerstaecker, A.** Arthropoda. Fortges. v. C[arl] Verhoeff. (H. G. Bronn's Klassen u. Ordnungen des Thier-Reichs, Bd 5, Abt. 2, Lfg 63-68). Leipzig (C. F. Winter), 1902-1903, (1-76, mit Taf.). 26 cm. 9 M. [2403]. 50

**Giard, Alfred.** Les idées de Lamarck sur la métamorphose. Paris, C.-R. soc. biol., **55**, 1903, (8-9). [0010 0215 2415]. 51

—— Pourquoi les insectes de nuit sont-ils, de préférence, attirés par la lumière artificielle?—Réponse à la question de M. Guilhaud. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (202-203). [2419]. 52

**Gibson, William Hamilton.** Blossom hosts and insect guests: how the heath family, the bluets, the figworts, the orchids and similar wild flowers welcome the bee, the fly, the wasp, the moth and other faithful insects; edited by Eleanor E. Davie; illustrated by the Author. New York (Newson & Co.), [1901], (XIX + 197, with front., illustr.). 20 cm. [2419]. 53

**Gillette, C. P.** Notes on some Colorado insects. Washington, D.C., Bull. U. S. Dept., Agric. Div. Ent., (N. Ser.), No. **31**, 1902, (51-55). [0060 2427 *gi*]. 54

**Gossard, H. A.** Report of the entomologist. Agric. Exp. Sta. Florida, Lake City, Rep., **1901**, (58-75); [review], Washington, D.C., U. S. Dept. Agric. Off., Exp. Sta. Rec., **13**, 1902, (1062). [2403]. 55

**Gross, J.** Untersuchungen über die Histologie des Insectenovariums. Zool. Jahrb., Jena, Abt. f. Anat., **18**, 1903, (71-186, mit 9 Taf.). [2407 2415]. 56

**Grünberg, K.** Die Homologie des Trochanters bei Chilopoden und Insekten, sowie über die Bedeutung secundärer Einschnürungen am Trochanter verschiedener Insekten. Berlin, Sitz-Ber. Ges. natf. Freunde, **1903**, (74-82, mit 1 Taf.). [2407]. 57

**Haensch, Rich[ard].** Kurzer Bericht über die entomolog. Ergebnisse meiner Ecuador-Reise. Berliner ent. Zs., **48**, 1903, (149-156). [2427 *he*]. 58

- Hebard, Morgan.** A few captures made at Miami, Florida. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (253). [2427 gh]. 59
- Notes on the collecting around Thomasville, Georgia. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (260-261). [2427 gh]. 60
- Hesse, Edmond.** Sur la présence de Microsporidies du genre *Theloania* chez les insectes. Paris, C.-R. Acad. sci., **137**, 1903, (418-419). [2419]. 61
- Heycke, E.** Wie die Insekten sehen. Allg. Zs. Ent., Neudamm, **8**, 1903, (206-208). [2411]. 62
- Hoag, M. C.** [The Moreno valley and Ute creek districts as collecting regions]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (59). [2427 gi]. 63
- Collecting in Mexico. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (319-322). [2427 ha]. 64
- Hofer, J.** Beobachtungen und Versuche über Bekämpfung tierischer Feinde der Obstbäume, Weinreben und einiger Gartenpflanzen. Wädensweil, Jahresber. Versuchstation, **1902**, (108-121). [2419]. 65
- Holmgren, Nils.** Ueber vivipare Insecten. Zool. Jahrb., Jenna, Abt. f. Syst., **19**, 1903, (431-468). [2407 2419]. 67
- Holtz, Martin.** Reiseerinnerungen aus dem Peloponnes. Insektenbörse, Leipzig, **30**, 1903, (4-5, 12, 28, 35-36, 43, 50-51, 67-68, 75-76, 83-85, 92-93). [2427 dl]. 68
- Hopkins, A. D.** Insect enemies of the pine in the Black Hills forest reserve. An account of results of special investigations, with recommendations for preventing losses [new *Dendroctonus* and *Tomicus*]. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **32**, 1902, (24, with pl.). 23 cm. [2403 2419 4831]. 69
- Horváth, Geza.** Die Insectenfauna der kochsalz- und sodahaltigen Gebiete Ungarns. (Hung.) Állat Közlem., Budapest, **2**, 1903, (206-211). [2427 dk]. 70
- Houghton, C. O. v. MacGillivray,** Alex[ander] D[yer].
- Hutton and Poulton.** Pseudomimicry. Nature, London, **67**, 1903, (439). [2419]. 71
- Imhof, O.** Une étude comparative sur les antennes et les ailes des insectes. Aarau, Verh. Schweiz. Natf. Ges., **85**, 1902, (81); Arch. Sci. Phys., Genève, (Ser. 4), **14**, 1902, (556-558). [2407]. 72
- Jakovlev, V. v. Semenov, A. P.**
- Johannsen, O. A. v. Needham, J. G.**
- Kellogg, Vernon L[yman].** Some insect reflexes. Science, New York, N.Y., (N. Ser.), **18**, 1903, (693-696). [2419]. 73
- Kirkland, A. H.** Notes on four imported pests. [Porthetria dispar, Euproctis chrysorrhæa, Galerucella luleola, and Cryptorhynchus lapathi in New England]. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **31**, 1902, (93-97). [2403]. 74
- Kokujev, N. v. Semenov, A. P.**
- Kolbe, H. J.** Ueber vorschnelle Entwicklung (Prothetelie) von Puppen- und Imago-Organen bei Lepidopteren- und Coleopteren-Larven, nebst Beschreibung einer abnormen Raupe des Kiefernspinners, *Dendrolimus pini* L. Allg. Zs. Ent., Neudamm, **8**, 1903, (1-9, 25-30). [2415 4431]. 75
- Koningsberger, J[acob] C[hristiaan].** Insectenkrankheiten der Reis, Jalack, Thee und anderer Kulturpflanzen. (Holländisch) Buitenzorg. Meded. Plant., **64**, 1903, (11-109, 5 Taf.). [2403]. 76
- Kolevnikov, G. A.** Ueber den Fangapparat Photeklektor. (Russ.) St. Petersburg, Hor. Soc. Ent. Ross., **36**, 1903, (CLXI-CLXVIII). [2403]. 77
- Kraatz, G.** [Paul Weise]. D. ent. Zs., Berlin, **1903**, (174). [0010 2403]. 78
- Krasnitschik, I. M.** Zur Frage über die Einwirkung der Gifte auf die Insecten. (Russ.) Trd. B. entom. Učen. Kom. M. Zeml., St. Petersburg, IV, No. 3, 1903, (25). [2411 2423]. 79
- Krüger, O.** Die schädlichsten Forstinsekten auf der Kiefer und Schutzmassregeln gegen diese Insekten. Auf Grund vierzigjähriger Tätigkeit in Kiefernrevieren vom rein praktischen Standpunkte aus betrachtet. 2. verb. Aufl. Dessau (C. Dünhaupt), 1903, (44). 23 cm. 1 M. [2419]. 80
- Krulikovitj, L. v. Semenov, A. P.**

**Kulagin, Nikolaj.** Berichte über die russische zoologische Litteratur. Lief. V. Bericht über Insecten für d. J. 1897. (Russ.) Moskva, 1902, (1-50). 34 cm. [2403]. 81

**Kuznecov, N. I.** Nouvelle méthode de combattre les insectes nuisibles (Russ.) Rev. Russ. Ent., Jaroslavl, 3, 1903, (281-283). [2403]. 82

——— r. Semenov, A. P.

**Lange, C.** Fünfter Beitrag zur Insektenfauna des oberen Erzgebirges. Annaberg. Ber. Ver. Natk., 11, (1898-1903), 1903, (23-33). [2427 dc]. 83

**Lankester, E. Ray.** Catalogue of the books, manuscripts, maps and drawings in the British Museum Natural History. [With an introduction by B. B. Woodward, who is responsible for the preparation of the work. To be completed in about 4 volumes]. Vol. i. A-D. London, 1903, (viii + 500). 4to. [0060 2403]. 84

**Léger, L. et Duboscq, O.** Les grégaires et l'épithélium intestinal chez les Trachéates. Arch. parasit., Paris, 6, 1902, (377-473, av. fig. et 5 pl.). [0419 0431 2419 3419]. 85

**Lendenfeld, R[obert] von.** Demonstration von Photographien fliegender Insekten. Verh. Ges. D. Natf., Leipzig, 74, (1902), II, 1, 1903, (157-159). [2411]. 86

**Lewis, E. J.** [The oak galls and gall insects of Epping Forest. Pts. I and II.] Stratford, Essex Nat., 12, 1902, (267-268); 13, 1903, (138-160). [2419]. 87

**Loeb, Leo.** On the coagulation of the blood of some Arthropods and on the influence of pressure and traction on the protoplasm of the blood cells of Arthropods. Wood's Holl, Mass., Mar. Biol. Lab. Bull., 4, 1903, (301-318). [2411]. 88

——— Ueber die Bedeutung der Blutkörperchen für die Blutgerinnung und die Entzündung einiger Arthropoden und über mechanische Einwirkungen auf das Protoplasma dieser Zellen. Arch. path. anat., Berlin, 173, 1903, (35-112). [2411]. 89

**Longin Navas.** Espèces cosmopolites et localisées [à propos d'une question de M. G. de Rocquigny Adanson, Feuille jeunes natural., p. 85]. Feuille jeunes (N 2-9053).

natural., Paris, (sér. 4), 33, 1903, (108). [2427]. 90

**Lowe, E.** Insects and flowers. Nature, London, 67, 1903, (369). [2419]. 91

**Lowe, V. H.** Miscellaneous notes on injurious insects, 2. Agric. Exp. Sta., New York, (State station), Geneva, Bull. No. 212, 1902, (25, with 9 pls.). 23 cm. [Review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., 14, 1902, (62-63). [2403]. 92

**Lucas, Robert.** [Bericht über die wissenschaftl. Leistungen im Gebiete der Hymenoptera, Lepidoptera, Trichoptera, Panorptatae, Neuroptera, Rhynchota, Mallophaga, Thysanoptera, Corrodentia, Orthoptera, Plecoptera, Odonata, Agnatha, Dermatoptera, Apterygogenea, Myriopoda, Arachnida, Prototracheata, [während d. J. 1899]. Arch. Natg., Berlin, 66, Bd 2, H. 2, 1900, [1903]; D. ent. Zs., Berlin, 1900, H. 3, 1900, [1903], (369-820, 881-1214). [2403]. 93

**Ludwig, F.** Vorschläge zur Herstellung biologischer Insektensammlungen. Insektenbörse, Leipzig, 20, 1903, (308). [2403]. 94

**McCook, Henry Christopher.** Insects and civilization. Harper's Monthly Magazine, New York and London, 106, 1902, (79-82). [2403]. 96

**McKifresh, F. M.** A method of collecting [on snow fields]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (316-319). [2403]. 97

**MacGillivray, A[lexander] D[yer] and Houghton, C. O.** A list of insects taken in the Adirondack mountains, New York. Philadelphia, Pa., Ent. News. Acad. Nat. Sci., 13, 1902, (247-253); 14, 1903, (12-13, 262-265). [4231 2427 gg 4227 gg 4827 gg] 98

——— v. Needham, J. G.

**Mariatt, C[harles] L[ester].** Applied entomology in Japan. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., No. 40, 1903, (56-63, with pl.). [2427 es 2403]. 99

**Masarakij, V. V.** Frühlingsexursionen in der Umgebung St. Petersburg 1901. Der Frühling 1901 im Gouv. St. Petersburg. (Russ.) St. Petersburg, Hor. Soc. Ent. Ross., 36, 1903, (XXXV-XLIV). [2423]. 100



**J. Melander**, Axel Leonard. Some additions to the carboniferous terrestrial Arthropod fauna of Illinois. Chicago, Ill., J. Geol. Univ. Chic., **11**, 1903, (178-198, with pl.). [2427 *gg* 3031 3831]. 101

— and **Brues**, Charles Thomas. Guests and parasites of the burrowing bee *Halictus* [un. spp. of Diptera and Hymenoptera]. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **5**, 1903, (1-27, with text fig.). [2419 4231 4610 4631]. 102

**Melichar**, L. Eine entomologische Exkursion nach Bosnien und Herzegowina. Ent. Jahrb., Leipzig, **12**, 1903, (91-102). [2427 *dk*]. 103

**Mercer**, W. A few insects and plant diseases of special interest to farmers. Columbus, Ohio, Univ. Bull. St. Univ., (N. Ser.), **3**, 1901, (126-138). [2419]. 104

**Mercier**, L. Moyens de défense de quelques insectes. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (107-108). [2419]. 105

**Mokrzeckij**, S. A. Verzeichnis der Insecten und anderer wirbelloser Thiere, welche im europäischen Russland und im Kaukasus an Weinreben gefunden wurden. (Russ.) Ausg d. Minist. d. Landwirthschaft u. d. Staatsdomänen. St. Petersburg, 1903, (39). 23 cm. [1419 2419 2427]. 106

**Morley**, Claude. Entomology [Leing Chap. XV, pp. 233-242, The Norfolk Broads]. London, 1903. 8vo. [2403]. 107

**Murtfeldt**, Mary E. Drought, heat, and insect life [in the Mississippi Valley]. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **31**, 1902, (97-99). [2411 2427 *gf*]. 108

**Needham**, James G., **MacGillivray**, Alex. D., **Johannsen**, O. A. and **Davis**, K. C. Aquatic insects in New York state. A study conducted at the entomologic field station, Ithaca, N.Y., under the direction of Ephraim Porter Felt. Albany, Univ. N. Y., Bull. St. Mus., No. **68**, (Entomology 18 and University Bulletin 295), 1903, (197-517, with pl.). [2427 *gg*]. 109

**Newell**, Wilmon v. Webster, F. M.

**Oestland**, O. W. Larva vice nymph. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (253-255). [2415]. 110

**Osborn**, Herbert. Insects of the season in Ohio. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., No. **40**, 1903, (45-47). [2427 *gg*]. 111

**Osten Sacken**, [Karl] [Robert Romanovich] **Baron von**. Record of my life work in entomology. Cambridge, Mass., 1903, (VIII + 204, with 2 portr. facsim.). 24.5 cm. [2403]. 112

**Packard**, Alpheus S. Hints on the classification of the Arthropoda: the group a polyphyletic one. Philadelphia, Pa., Proc. Amer. Phil. Soc., **42**, 1903, (142-161). [2431]. 113

— Color-preference in insects. New York, N.Y., J. Ent. Soc., **11**, 1903, (132-137). [2419]. 114

**Patten**, W[illiam]. On the structure of the *Pteraspidae* and *Cephalaspidae*. [With bibliography.] Amer. Nat., Boston, Mass., **37**, 1903, (837-865, pl.). [2407 2423 5207 5223]. 115

**Pérez**, Charles. Contribution à l'étude des métamorphoses. Bul. sci. France-Belgique, Paris, **37**, 1902, (195-433, av. pl.); Thèse Fac. sci. Lille, 1902, (240, av. 3 pls.). 25 cm. [2415 2431]. 116

**Péringuey**, L. Some phases of insect life in South Africa. Phonation in insects. Cape Town, Trans. S. Afric. Phil. Soc., **14**, 1903, (I-VIII). [2419 2427 *fg*]. 117

**Pettit**, R. H. Some insects of the year 1901. Agric. Exp. Sta., Michigan, Agricultural College, Bull. No. **200**, 1902, (179-212, with 21 figs.); [review]. Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., **14**, 1902, (267-268). [2403 2427 *gg*]. 118

**Peyerimhoff**, P. de. Sur l'état de la systématique en entomologie, principalement chez les coléoptères. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (37-42). [2431 4831]. 119

— Sur la méthode dans les recherches de phylogénie entomologique. Feuille jeunes natural., Paris, (sér. 4), **33**, (89-95). [2423 2431 4823 4831]. 120

— La larve des insectes métabola et les idées de Fr. Brauer. Feuille jeunes natural., Paris, (sér. 4), **34**, 1903, (21-26). [2431 2415]. 121

**Pomerancev**, D. v. Semenov, A. P.

**Porta, A.** La funzione epatica negli insetti. Nota preventiva. *Anat. Anz.*, Jena, **22**, 1903, (447-448). [2407 2411]. 122

——— La funzione pancreo-epatica negli insetti. *Anat. Anz.*, Jena, **24**, 1903, (97-111). [2411]. 123

**Poulton, E. B.** What is a species? President's Address. London, *Proc. Ent. Soc.*, **1903**, (lxxvii-cxvi). [0223 2403]. 124

——— Value of transparent spaces. London, *Proc. Ent. Soc.*, **1903**, (26-28). [2419]. 124A

——— A brief discussion of A. H. Thayer's suggestions as to the meaning of colour and pattern in insect bionomics. London, *Trans. Ent. Soc.*, **1903**, (570-575). [2419]. 125

——— v. Hutton.

**Pritchett, Annie H.** Some experiments in feeding lizards with protectively coloured insects. [With bibliography]. [Contribution from the zoological laboratory of the university of Texas. No. 52.] Wood's Holl, Mass., *Mar. Biol. Lab. Bull.*, **5**, 1903, (271-287). [0219 2419 5619 5631]. 126

**Quaintance, A. L.** Entomological notes from Maryland. Washington, D.C., *Bull. U. S. Dept. Agric. Div. Ent.*, No. **40**, 1903, (47-50). [2427 gh]. 127

**Rainbow, W. J.** The Arthropoda. Notes on the Zoology of Paanopa or Ocean Island and Nauru or Plensant Island. Sydney, N.S.W., *Rec. Austr. Mus.*, **5**, 1903, (5-7). [2427 ib]. 128

**Redeke, H[einrich] C[arl].** Plankton-Untersuchungen im „Zwanenwater“ bei (allantsoog. (Holländisch) Haarlem, *Nat. Verb. Holl. Maatsch. Wet.*, (Verz. 3), **5**, 1903, (1-42, mit 5 Taf.). [2419 2431]. 129

**Behberg, A.** Schädliche Insekten Westpreussens und deren Bekämpfung. Danzig, *Schr. natf. Ges.*, (N. F.), **10**, H. 4, 1902, (64-81). [2427 de 2419]. 130

**Reuter, Enzo.** Beiträge zu einer statistischen Untersuchung über die Ursachen der Weissährigkeit an den Wiesengräsern in Finland. Helsingfors, *Comptes rendus du Congrès des Naturalistes et Médecins du Nord tenu à Helsingfors du 7 au 12 Juillet 1902*, **1903**, VI Section, (20-26). [2419]. 131

(N 2-0053)

**Reuter, O[do] M[orannal].** Sonderbare Speiseegenossen. (Finnisch) Luonnon. Ystäv., Helsingfors, **1903**, 10, (236-238). [2419]. 132

**Russkij, M. r. Semenov, A. P.**

**Sainte-Claire Deville, J.** Exploration entomologique des grottes des Alpes-Maritimes. *Ann. soc. ent.*, Paris, **71**, 1902, [1903]. (695-703, av. fig.). [2431 2631 2427 df 4831 3031 3431 3831 3631]. 133

**Sambon, L. W.** Principles determining the geographical distribution of disease. *J. trop. Med.*, London, **5**, 1903, (101-106). [0060 0227 2419]. 134

**Sanderson, E[zra] D[wright].** Report of the entomologist. [Including notes on *Aphis* and *Euzophera semifuneralis*. *Agric. Exp. Sta.*, Delaware, Newark, Rep., **1901**, (127-199, with 6 pls., 16 figs.); [review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., **14**, 1902, (268-269). [2403 2427 gh 4031 4431]. 135

**Schenkling, C.** Die Spinnkunst der Insekten. *Insektenbörse*, Leipzig, **20**, 1903, (332-333). [2419]. 136

**Schiller-Tietz.** Ameisen, Blattläuse und Honigtau an Kulturpflanzen. Schweiz.-Bauer, Bern, **56**, 1902, No. 70, (5). [2419]. 137

**Schindler, Anton K.** Die Metamorphose der Insekten. *Zs. Natw.*, Stuttgart, **75**, (1902), 1903, (341-356). [2415]. 138

**Schnittzler, Franz.** Ueber lebende Fremdkörper im Ohre. *Diss. München* (Druck v. C. Wolf & S.), 1901, (31). 21 cm. [2419]. 139

**Schwarz, E. A.** A letter from Cuba [containing entomological notes]. Washington, D.C., *Proc. Ent. Soc.*, **5**, 1903, (286-289). [2427 hi]. 140

**Selditz, G[eorg].** Bericht über die wissenschaftlichen Leistungen im Gebiete der Entomologie während des Jahres 1901. *Allgemeines. Arch. Natg.*, Berlin, **69**, Bd 2, H. 2, 1902 [1903], (1-44) = *D. ent. Zs.*, Berlin, **1902**, H. 3, [1903], (1-44). [2403]. 141

**Sellards, E. H.** Discovery of fossil insects in the Permian of Kansas. *Amer. J. Sci.*, New Haven, Conn., (Ser. 4), **16**, 1903, (323-324). [2427 gi]. 142

- Semenov, A. P., Adelung, N., Bergroth, E., Čičerin, T., Jakovlev, V., Kokujev, N., Krulikovskij, L., Kuznecov, N., Pomerancev, D., Ruzskij, M. and Skorikov, A.** Revue de la bibliographie, concernant la faune russe. (Russ.) Rev. Russ. Ent., Jaroslavl, **3**, 1903, (46-67 + 117-152 + 233-280 + 314-343 + 405-448). [2403]. 143
- Sharp, D.** Insecta. Zool. Rec. London, **39**, 1902, No. xiii, (313). [2403]. 145
- Sherman, Franklin, jun.** Injurious insects. Raleigh N.C., Bull. St. Brd. Agric., **24**, 1903, (3-29). [2419 2427 gh]. 146
- Skinner, Henry.** A list of the insects of Beulah, New Mexico. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1902-1903, (35-117). [2403 2427 gi]. 147
- Skorikov, A. v. Semenov, A. P.**
- Slosson, Annie Trumbull.** Additional list of insects taken in Alpine region of Mt. Washington [nn. spp. in Parasitica]. Philadelphia, Pa., Ent. News. Acad. Nat. Sci., **13**, 1902, (319-321). 2427 gg 4631 4831j]. 148
- Smith, G.** The temperature of insects. Zoologist, London, (Ser. 4), **6**, 1902, (287-293). [2411]. 149
- Smith, J. B.** Report of the entomologist. Agric. Exp. Sta., New Jersey, New Brunswick, Rep., **1904**, (463-587, with 36 figs.); [review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta., Rec., **14**, 1903, (586-587). [2403]. 150
- Spaulding, Perley.** The relation of insects to fungi. Plant World, Washington, D.C., **6**, 1903, (182-184). [2419]. 151
- Standfuss, M.** Zur Frage der Unterscheidung der Arten bei den Insekten. Ent. Zs., Guben, **16**, (1902-1903), 1902, (1-2). [2431]. 152
- Stebbing, E. P.** Insect pests of the sugar cane in India. Calcutta, Ind. Mus. Notes, **5**, 1903, (64-91). [2419]. 152a
- Departmental notes on insects that affect forestry. No. 2. Calcutta, 1903, (V-VII + 151-334, with 13 pls.). 25 cm. [2419]. 152b
- Sutherland, Harvey.** The book of bugs. New York and London (Street & Smith), [1902], (233, with illustr.). [2403]. 153
- Tarnani, I. K.** Insecten welche dem Obstbau und der Gemüsegärtnerei in den Gouvernements des Zarenthums Polen schädlich werden und die Mittel zur Bekämpfung dieser Insecten. (Russ.) Varsava, 1903, (138, mit 135 Fig.). 25 cm. [2419 2427 db]. 154
- Thayer, A. H.** Protective coloration in its relation to mimicry, common warning colours, and sexual selection. London, Trans. ent. Soc., **1903**, (553-569). [2419]. 154a
- Theobald, F. V.** British Museum (Natural History). First report on Economic Zoology. London, 1903, (xxxiv + 192). 8vo. Includes "a classification of animals from the point of view of Economic Zoology," by E. Ray Lankester, (xi-xxxiv). [0060 2403]. 155
- Thibault, J.** Mes chasses entomologiques en 1902. Elbeuf, Bul. soc. étud. sci. nat., **21**, (1902), 1903, (37-42). [2427 df 2431]. 156
- Tower, William Lawrence.** The development of colours and colour patterns of Coleoptera, with observations upon the development of colour in other orders of insects [with bibliography] Chicago, Ill., Dec., Pub. Univ. Chic., (Ser. 1), **10**, 1903, ([31]-40, with pl.). [2407 4807]. 157
- Ulrich, Carl Jost.** A contribution to the subterranean fauna of Texas [Arthropoda with nn. spp. in Crustacea, Arachnida and Aptera]. Contributions from the Zoological Laboratory of the Indian University, No. **34**, in Lincoln, Nebr., Trans. Amer. Microsc. Soc., **23**, 1901, [1902], (83-100, with pl.). [0219 2427 gi 2631 3031 3631]. 158
- Van Hauwaert, P.** De insectenwereld met illustraties. [Die Insektenwelt.] Gent (I. Vanderpoorten), 1903, (64, av. figs.). 8vo. fr. 0.75. [2403]. 159
- Van Kerchove, Em.** De la nécessité de vulgariser l'entomologie en Belgique. Ing. agric., Gembloux, **1901**, (480-483). [2403]. 160
- Vasiljev, I. V.** Ueber Insecten, welche 1900 im Gouv. Char'kov den Kiefern schadeten (Vorläufige Mitteilung). Russ. St. Peterburg, Hor. Soc. Ent. Ross., **36**, 1903, (VII-X). [2419]. 161

**Verhoeff**, Karl W. Ueber Tracheaten-Beine. 2. Aufsatz: Trochanter und Praefemur. Zool. Anz., Leipzig, **28**, 1903, (205-214). [2407]. 162

——— Tracheaten - Beine. Aufsatz 3: Progoneata. Berlin, SitzBer. Ges. natf. Freunde, **1903**, (82-103, mit Taf.). [2407]. 163

——— Ueber Tracheaten-Beine. Aufsatz 4 u. 5: Chilopoda und Hexapoda. Halle, Nova Acta Leop., **81**, 1903, (209-250, mit 4 Taf.). [2407]. 165

——— Beiträge zur vergleichenden Morphologie des Thorax der Insekten mit Berücksichtigung der Chilopoden. Halle, Nova Acta Leop., **81**, 1902, (63-110, mit 7 Taf.). [2407]. 164

——— Ueber die Endsegmente des Körpers der Chilopoden, Dermapteren und Japygiden und zur Systematik von Japyx. Halle, Nova Acta Leop., **81**, 1903, (257-258, mit 2 Taf.). [2407 3631]. 166

——— Ueber die Interkalarsegmente der Chilopoden, mit Berücksichtigung der Zwischensegmente der Insekten. Arch. Natg., Berlin, **69**, Bd 1, 1903, (427-441, mit 1 Taf.). [3407 2407]. 167

**Viehmeier**, H. Kleinere Beiträge zur Biologie einiger Ameisengäste. Allg. Zs. Ent., Neudamm, **8**, 1903, (15-17). [2419 4619 4631]. 168

**Webster**, F. M. Some insect notes of the year. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., No. **40**, 1903, (93-96). [2403 2427 gg]. 169

——— Some insects attacking the stems of growing wheat, rye, barley and oats, with methods of prevention and suppression. [Life histories and descriptions of species of *Isosoma*, *Micromyza* and *Oscinia*.] Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., No. **42**, 1903, (62). 23 cm. [2419 4619]. 169a

——— and **Newell**, Wilmon. Insects of the year in Ohio. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **31**, 1902, (84-90). [2403 2427 gg]. 170

**Weed**, C[larance] M[oores]. Insect record for 1900. Agric. Exp. Sta., New Hampshire, Durham, Bull. No. **81**, 1901, (9-22, with 11 figs.); [review], Washington, D.C., U. S. Dept. Agric.

Off. Exp. Sta. Rec., **13**, 1902, (667). [2403 2427 gg]. 171

**Weed**, C[larance] M[oores]. Insect record for 1901. Agric. Exp. Sta., New Hampshire, Durham, Bull. No. **90**, 1902, (29-44, with 12 figs.); [review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta., Rec., **14**, 1902, (268). [2403 2427 gg]. 172

——— Notes from New Hampshire. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., No. **40**, 1903, (50-52). [2403 2427 gg]. 173

**Wickham**, H[enry] F[rederick]. San Francisco; a reminiscence [collections of insects]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (123-125). [2403]. 174

**Willis**, J. C. and **Burkill**, I. H. Flowers and insects in Great Britain. Part II. Observations on the Natural Orders *Dipsaceae*, *Plumbaginaceae*, *Compositae*, *Umbelliferae*, and *Cornaceae* made in the Clova mountains. Ann. Bot., Oxford, **17**, 1903, (313-340). Part III. Observations of the most specialized flowers of the Clova mountains, ib., (539-570). [2419]. 175

——— Notes on the anthophilous insect fauna of the Clova mountains. Ann. Scot. Nat. Hist., Edinburgh, **1903**, (29-37, 99-102). [2419 4419 4427 de 4627 de 4631]. 175a

**Wytman**, P. [et al.]. Genera insectorum, publiés. Fascicules I-XII. Bruxelles (P. Wytman), 1902. 4to. [2403]. 176

## 2403 COMPREHENSIVE AND GENERAL WORKS.

### GENERAL.

Bericht über die wissenschaftlichen Leistungen im Gebiete der Entomologie während des Jahres 1899. Zweite Hälfte: Insecta (Schluss), Myriopoda, Arachnida, Protracheata v. Robert Lucas u. Benno Wandolleck. Arch. Natg., Berlin, **66**, Bd 2, H. 2, 1900, [1903], (369-1244); D. ent. Zs., Berlin, **1900**, H. 3, 1900, [1903], (369-1244); separat: Berlin (Nicolai), 1903.

Bericht über die wissenschaftlichen Leistungen im Gebiete der Entomologie während des Jahres 1901. Erste

Hälfte. Von Georg Soidlitz. Insecta: Allgemeines u. Coleoptera. Berlin (Nicolai), 1903, (IV + 244). 24 cm. = D. ent. Zs., Berlin, 1902, H. 3, erste Hälfte, [1903] = Arch. Natg., Berlin, 68, Bd 2, H. 2, erste Hälfte, 1902 [1903].

Berliner entomologische Zeitschrift. Inhaltsübersicht über die einzelnen Jahrgänge, 1881-1890. Zusammengestellt v. W. Roepke. Berliner ent. Zs., 48, 1903, Beilage, (1-26).

Entomologisches Jahrbuch. Jg 12. Kalender für alle Insekten-Sammler auf das Jahr 1903. Hrsrg. v. Oskar Krancher. Leipzig (Frankenstein u. Wagner), 1903, (VIII + 256). 16 cm. Geb. 1,60 M.

Nachtrag I zum Bücher-Verzeichnis der Bibliothek des entomologischen Vereins zu Berlin . . . Zusammengestellt v. H. Stichel. Berlin (Druck v. C. Fromholz), 1902, (VIII + 48, nebst 2 Bl.). 21 cm. Auch als Beilage zu: Berliner ent. Zs., 47, 1902, [1903].

Bradley, J. Chester. Vernacular names again. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (26).

Darwin, F. A Naturalist's Calendar kept at Swaffham Bulbeck, Cambridgeshire, by Leonard Blomefield (formerly Jenyns). Cambridge, 1903, (XVIII + 84). [Review], Nature, London, 68, 1903, (389).

Diederichs, K. Die Photographie lebender Insekten. Apollo, Dresden, 9, 1903, (74-77); Entgegnung darauf v. Arth. Glaser, l.c. (127-128).

Lucas, Robert. [Bericht über die wissenschaftl. Leistungen im Gebiete der] Hymenoptera, Lepidoptera, Trichoptera, Panorptae, Neuroptera, Rhynchota, Mallophaga, Thysanoptera, Corrodentia, Orthoptera, Plecoptera, Odonata, Agnatha, Dermatoptera, Apterygogenea, Myriopoda, Arachnida, Prototracheata [während d. J. 1899]. Arch. Natg., Berlin, 66, Bd 2, H. 2, 1900 [1903]; D. ent. Zs., Berlin, 1900, H. 3, 1900, [1903], (369-820, 881-1244).

Morley, Claude. Entomology (being Chap. XV, pp. 233-242, The Norfolk Broads). London, 1903, 8vo.

Poulton, E. B. What is a species? President's Address. London, Proc. Ent. Soc., 1903, (lxxvii-cxvi).

Soidlitz, G[corg]. Bericht über die wissenschaftlichen Leistungen im Gebiete der Entomologie während des Jahres 1901. Allgemeines. Arch. Natg., Berlin, 68, Bd 2, H. 2, 1902 [1903], (1-44) = D. ent. Zs., Berlin, 1902, H. 3, [1903], (1-44).

Skinner, Henry. A list of the insects of Beulah, New Mexico. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., 29, 1902-1903, (35-117). [Includes papers by Skinner, Viereck, Calvert, Rehn, Van Duzee, Cockerell, and Johnson].

Sutherland, Harvey. The book of bugs. New York and London (Street and Smith), [1902], (233, with illustr.). 19.5 cm.

Van Kerchove, Em. De la nécessité de vulgariser l'entomologie en Belgique. Ing. agric., Gembloux, 1901, (480-483).

#### TREATISES.

Gerstaecker, A. Arthropoda. Fortges. v. C[arl] Verhoeff. (H. G. Bronn's Klassen u. Ordnungen des Thier-Reichs, Bd 5, Abt. 2, Lfg 63-68). Leipzig (C. F. Winter), 1902-1903, (1-76, mit Taf.). 26 cm. 9 M.

Van Hauwaert, P. Die Insektenwelt. (Holländisch) Gent (I Vanderpoorten), 1903, (64, av. figs.). 8vo. fr. 0,75.

Wytman, P. [et al.]. Genera insectorum, publiés. Fascicules I-XII. Bruxelles (P. Wytman), 1902. 4to.

#### ECONOMICS.

Banks, Nathan. Principal insects liable to be distributed on nursery stock. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. 34, 1902, (46). 23 cm.

———. An index to bulletins Nos. 1-30 (New series) (1896-1901) of the Division of entomology. l.c. No. 36, 1902, (64). 23 cm.

Britton, W. E. First report of the state entomologist. Agric. Exp. Sta., Connecticut, New Haven, Rep., 1901, Pt. 3, 1901; (227-278, with 11 pls., 2 fig.); [review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., 14, 1902, (63).

**Chittenden**, F[rank] H[urlob]. Some insects injurious to vegetable crops. A series of articles dealing with insects of this class. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **33**, 1902, (117). 23 cm.

**Fass**, Henri. L'acide prussique gazeuse dans la lutte contre les insectes. Lausanne, Bull. Soc. Sci. Nat., (sér. 4), **39**, 1903, (65-82); Arch. Sci. Phys., Genève, (sér. 4), **15**, 1903, (678-679).

**Felt**, Ephraim J[orster]. Observations on forest and shade tree insects in New York state. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **31**, 1902, (63-68).

**Fletcher**, James. Injurious insects of the year in Canada. I.c. No. **40**, 1903, (78-83).

**Garman**, H. Enemies of cucumbers and related plants. Agric. Exp. Sta., Kentucky, Lexington, Bull. No. **91**, 1901, (3-48, with 3 pls., 10 figs.); [review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., **13**, 1901, (368-369).

**Gossard**, H. A. Report of the entomologist. Agric. Exp. Sta. Florida, Lake City, Rep., **1901**, (53-75); [review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., **13**, 1902, (1032).

**Hopkins**, A. D. Insect enemies of the pine in the Black Hills forest reserve. An account of results of special investigations, with recommendations for preventing losses [New *Dendroctonus* and *Tomicus*]. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **32**, 1902, (24, with pl.). 23 cm.

**Kirkland**, A. H. Notes on four imported pests [*Porthetria dispar*, *Euproctis chrysorrhæa*, *Galerucella luteola*, and *Cryptorhynchus lapathi* in New England]. I.c. No. **31**, 1902, (93-97).

**Königsberger**, J[acob] C[hristiaan]. Insektenkrankheiten [javanischer Kulturpflanzen]. (Holländisch) Buitenzorg, Meded. Plant., **64**, 1903, (II + 109, 5 Taf.).

**Kuznetsov**, N. I. Nouvelle méthode de combattre les insectes nuisibles. (Russ.) Rev. Russ. Ent., Jaroslavl, **3**, 1903, (281-283).

**Lowe**, V. H. Miscellaneous notes on injurious insects. 2. Agric. Exp. Sta., New York, (State station), Geneva, Bull. No. **212**, 1902, (25, with 9 pls.). 23 cm.

[Review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta., Rec., **14**, 1902, (62-63).

**McJock**, Henry Christopher. Insects and civilization. Harper's Monthly Magazine, New York and London, **105**, 1902, ([79]-82).

**Marlatt**, C[harles] I[ester]. Applied entomology in Japan. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., No. **40**, 1903, (56-63, with pl.).

**Pettitt**, R. H. Some insects of the year 1901. Agric. Exp. Sta., Michigan, Agricultural College, Bull. No. **220**, 1902, (179-212, with 21 figs.); [review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., **14**, 1902, (267-268).

**Sanderson**, E[zra] D[wight]. Report of the entomologist [including notes on *Aphis* and *Euzophora semifurcatis*]. Agric. Exp. Sta., Delaware, Newark, Rep., **1901**, (137-199, with 6 pls., 16 figs.); [review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., **14**, 1902, (268-269).

**Smith**, J. B. Report of the entomologist. Agric. Exp. Sta., New Jersey, New Brunswick, Rep., **1901**, (463-457, with 36 figs.); [review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., **14**, 1903, (586-587).

**Theobald**, F. V. British Museum (Natural History). First report on economic Zoology. London, 1903, (xxxiv + 192), 8vo. Includes "a classification of animals from the point of view of Economic Zoology," by E. Ray Lankester, (xi-xxxiv).

**Webster**, F. M. Some insect notes of the year. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., **40**, 1903, (93-96).

——— and **Newell**, Wilmon. Insects of the year in Ohio. I.c. No. **31**, 1902, (84-90).

**Weed**, C[larence] M[oores]. Insect record for 1900. Agric. Exp. Sta., New Hampshire, Durham, Bull. No. **81**, 1901, (9-22, with 11 figs.); [review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta., Rec., **13**, 1902, (667).

——— Insect record for 1901. Agric. Exp. Sta., New Hampshire, Durham, Bull. No. **90**, 1902, (29-44, with 12 figs.); [review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., **14**, 1902, (268).

**Wood**, C[larence] M[oores]. Notes from New Hampshire. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., No. 40, 1903, (50-52).

## COLLECTIONS AND TECHNIQUE.

**Crevecoeur**, F. F. Some entomological notes [for collectors]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (47-50).

**Fernald**, H[enry] T[orsey]. How shall we arrange our collections? *I.c.* (108-110).

**Friese**, H. Neue Zeiss-Lupen [für Entomologen]. Allg. Zs. Ent., Neudamm, 8, 1903, (267-268).

**Košechnikov**, G. A. Ueber den Fangapparat Photoklektor. (Russ.) St. Petersburg, Hor. Soc. Ent. Ross., 36, 1903, (CLXI-CLXVIII).

**Ludwig**, F. Vorschläge zur Herstellung biologischer Insekten Sammlungen. Insektenbörse, Leipzig, 20, 1903, (308).

**McKilfresh**, F. M. A method of collecting [on snow fields]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (316-319).

**Wickham**, H[enry] F[rederick]. San Francisco; a reminiscence. [Collections of insects]. *I.c.* (123-125).

## HISTORY, BIBLIOGRAPHY.

**Kraatz**, G. [Paul Weise†]. D. ent. Zs., Berlin, 1903, (174).

**Kulagin**, N. Berichte über die russische zoologische Litteratur. Lief. V. Bericht über Insecten für d. J. 1897. (Russ.) Moskva, 1902, (1-50). 34 cm.

**Lankester**, E. Ray. Catalogue of the books, manuscripts, maps and drawings in the British Museum Natural History. [With an introduction by B. B. Woodward, who is responsible for the preparation of the work. To be completed in about 4 volumes.] Vol. I. A-D. London, 1903, (viii-500). 4to.

**Osten Sacken**, [Karl] R[obert Romano- vich] baron v[on]. Record of my life work in entomology. Cambridge, Mass., 1903, (viii + 204, with 2 ports., facsim.). 24.5 cm.

**Semenov**, A. P. Revue de la bibliographie, concernant la faune russe. (Russ.) Rev. Russ. Ent., Jaroslavl, 3, 1903, (46-67, 117-152, 233-280, 314-343, 405-418).

**Sharp**, D. Insecta. Zool. Rec., London, 39, 1902, No. xiii, (313).

## 2407 STRUCTURE.

## COMPARATIVE ANATOMY.

**Börner**, Carl. Kritische Bemerkungen über einige vergleichend-morphologische Untersuchungen K. W. Verhoeff's. Zool. Anz., Leipzig, 26, 1903, (290-315).

Ueber die Gliederung der Laufbeine der *Atelocerata* Heymons. Berlin, SitzBer. Ges. natf. Freunde, 1902, (205-229, mit 2 Taf.).

Die Mundgliedmaassen der Opisthogoneata. *I.c.* 1903, (58-74, mit Taf.).

Die Beingliederung der Arthropoden. (3. Mitt. Die Cheliceraten. Pantopoden und Crustaceen betr.). *I.c.* (292-341, mit 7 Taf.).

**Grünberg**, K. Die Homologie des Trochanters bei Chilopoden und Insekten, sowie über die Bedeutung secundärer Einschnürungen am Trochanter verschiedener Insekten. *I.c.*, (74-82, mit 1 Taf.).

**Imhof**, O. Une étude comparative sur les antennes et les ailes des insectes. Aarau, Verh. Schweiz. Natf. Ges., 85, 1902, (81); Arch. Sci. Phys., Genève, (4), 14, 1902, (556-558).

**Patten**, W[illiam]. On the structure of the *Pteraspidae* and *Cephalaspidae*. [With bibliography.] Amer. Nat., Boston, Mass., 37, 1903, (827-865, with pl.).

**Verhoeff**, Karl W. Ueber Tracheaten-Beine. 2. Aufsatz: Trochanter und Praefemur. Zool. Anz., Leipzig, 26, 1903, (205-214).

Tracheaten-Beine. Aufsatz 3: Progoneata. Berlin, SitzBer. Ges. natf. Freunde, 1903, (82-103, mit Taf.).

Ueber Tracheaten-Beine. Aufsatz 4 u. 5: Chilopoda und Hexapoda. Halle, Nova Acta Leop., 81, 1903, (209-250, mit 4 Taf.).

**Verhoeff**, Karl W. Beiträge zur vergleichenden Morphologie des Thorax der Insekten mit Berücksichtigung der Chilopoden. *l.c.* 1902, (63-110, mit 7 Taf.).

Ueber die Endsegmente des Körpers der Chilopoden, Dermatiden und Japygiden und zur Systematik von *Japyx*. *l.c.* (257-298, mit 2 Taf.).

Ueber die Interkalarsegmente der Chilopoden, mit Berücksichtigung der Zwischensegmente der Insekten. *Arch. Natg.*, Berlin, **69**, Bd 1, 1903, (427-441, mit 1 Taf.).

## ALIMENTARY SYSTEM.

**Porta**, A. La funzione epatica negli insetti. Nota preventiva. *Anat. Anz.*, Jena, **22**, 1903, (447-448).

## REPRODUCTIVE ORGANS.

**Gross**, J. Untersuchungen über die Histologie des Insectenovariums. *Zool. Jahrb.*, Jena, Abt. f. Anat., **18**, 1903, (71-186, mit 9 Taf.).

**Holmgren**, Nils. Ueber vivipare Insekten. *Zool. Jahrb.*, Jena, Abt. f. Syst., **19**, 1903, (431-468).

## COLOUR.

**Tower**, William Lawrence. The development of colors and color patterns of Coleoptera, with observations upon the development of color in other orders of insects [with bibliography]. Chicago, Ill., Dec., Pub. Univ. Chic., (Ser. 1), **10**, 1903, (31-40, with pl.).

## 2411 PHYSIOLOGY.

## GENERAL.

**Loeb**, Leo. Ueber die Bedeutung der Blutkörperchen für die Blutgerinnung und die Entzündung einiger Arthropoden und über mechanische Einwirkungen auf das Protoplasma dieser Zellen. *Arch. path. Anat.*, Berlin, **173**, 1903, (35-112).

On the coagulation of the blood of some Arthropods and on the influence of pressure and traction on the

protoplasm of the blood cells of Arthropods. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **4**, 1903, (301-318).

**Smith**, G. The temperature of insects. *Zoologist* London, (Ser. 4), **6**, 1902, (287-293).

## FUNCTION OF SPECIAL STRUCTURES.

Sur la stridulation chez les insectes. Par. X. Feuille jeunes natural., Paris, (sér. 4), **33**, 1902, (13), d'après Morley, Cl. Field Notes on stridulation. *Ent. Mag.*, London, **1902**, (249-250).

**Heycke**, E. Wie die Insekten sehen. *Allg. Zs. Ent.*, Neudamm, **8**, 1903, (206-208).

**Lendenfeld**, R[obert] von. Demonstration von Photographien fliegender Insekten. *Verh. Ges. D. Natf.*, Leipzig, **74**, (1902), II, 1, 1903, (157-159).

**Porta**, A. La funzione epatica negli insetti. Nota preventiva. *Anat. Anz.*, Jena, **22**, 1903, (447-448).

La funzione pancreo-epatica negli Insetti. *l.c.* **24**, 1903, (97-111).

## ENVIRONMENTAL EFFECTS.

**Chittenden**, F[rank] H[ur]lbut]. Insects and the weather during the season of 1900. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **30**, 1901, (63-75).

**Krassilnik**, I. M. Zur Frage über die Einwirkung der Gifte auf die Insekten. (Russ.) *Trd. B. entom. Učen. Kom. M. Zeml.*, St. Peterburg, **IV**, No. 3, 1903, (25).

**Murtfeldt**, Mary E. Drought, heat, and insect life [in the Mississippi Valley]. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **31**, 1902, (97-99).

## 2415 DEVELOPMENT.

## GENERAL.

Les insectes des livres. Par L. R. Nature, Paris, **30**, (2<sup>e</sup> semest.), 190<sup>3</sup>, (249-250).



## OÜTM.

**Gross, J.** Untersuchungen über die Histologie des Insectenovariums. Zool. Jahrb., Jena, Abt. f. Anat., **18**, 1903, 71-186, mit 9 Taf.).

## POSTEMBRYONIC ONTOGENY.

**Deegener, P[aul].** Zur postembryonalen Entwicklung des Insectendarms. Zool. Anz., Leipzig, **26**, 1903, (547-550).

## METAMORPHOSIS AND LARVAL FORMS.

**Bauer, Victor.** Zur inneren Metamorphose des Centralnervensystems der Insecten. (Vorläuf. Mitt.) Zool. Anz., Leipzig, **26**, 1903, (655-656).

**Giard, Alfred.** Les idées de Lamarck sur la métamorphose. Paris, C.-R. soc. biol., **55**, 1903, (8-9).

**Kolbe, H. J.** Ueber vorschnelle Entwicklung (Prothetelie) von Puppen- und Imago-Organen bei Lepidopteren- und Coleopteren-Larven, nebst Beschreibung einer abnormen Raupe des Kiefernspinners, *Dendrolimus pini* L. Allg. Zs. Ent., Neudamm, **8**, 1903, (1-9, 25-30).

**Oestlund, O. W.** Larva vice nymph. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (253-255).

**Pérez, Charles.** Contribution à l'étude des métamorphoses. Bul. sci. France-Belgique, Paris, **37**, 1902, (195-433, av. pl.); Thèse Fac. sci., Lille, 1902, (240, av. 3 pls.). 25 cm.

**Peyerimhoff, P. de.** La larve des insectes métabola et les idées de Fr. Brauer. Feuille jeunes natural., Paris, sér. 4), **34**, 1903, (21-26).

**Schindler, Anton K.** Die Metamorphose der Insekten. Zs. Natw., Stuttgart, **75**, (1902), 1903, (341-356).

## 2419 ETHOLOGY.

## GENERAL.

**Cook, Melville Thurston.** Galls and insects producing them. Parts 3, 4 and 5. Ohio Nat., Columbus, **3**, 1903, (419-436); [reprint], Columbus, Univ. Bull. (Ser. 7), No. **20**. 23.2 cm.

**Proggatt, Walter W.** Insectarium notes and insects found about the Hawkesbury College. Agric. Gaz., Sydney, N.S.W., **14**, 1903, (1019-1027, with 2 pls. and 1 text-fig.).

**Lewis, E. J.** [The oak galls and gall insects of Epping Forest. Pts. I and II]. Stratford, Essex Nat., **12**, 1902, (267-286); **13**, 1903, (138-160).

**Lowe, E.** Insects and flowers. Nature, London, **67**, 1903, (368, 369).

**Péringuey, L.** Some phases of insect life in South Africa. Cape Town, Trans. S. Afric. Phil. Soc., **14**, 1903, (i-viii).

**Tarnani, I. K.** Insecten welche dem Obstbau u. d. Gemüsegärtnerei in den Gouvernements des Zarenthums Polen schädlich werden u. d. Mittel zur Bekämpfung dieser Insecten. (Russ.) Warsava, 1903, (138, mit 135 Fig.). 25 cm.

**Willis, J. C. and Burkill, I. H.** Flowers and insects in Great Britain. Part II. Observations on the Natural Orders *Dipsacaceae*, *Plumbaginaceae*, *Compositae*, *Umbelliferae*, and *Cornaceae* made in the Clova mountains. Ann. Bot., Oxford, **17**, (313-349). Part. III. Observations on the most specialized flowers of the Clova mountains, *ib.* (539-570).

Notes on the anthophilous insect fauna of the Clova mountains. Ann. Scot. Nat. Hist., Edinburgh, **1903**, (29-37, 99-102).

## HABITS.

**Barrett.** Habits and mimicry. Ent. Mag., London, **39**, 1903, (170).

**O[alvert], P. P.** Five years' observations and experiments on the bionomics of South African insects . . . by Guy A. Marshall . . . [Review]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (91-96).

**Chittenden, F[rank] H[urlbut].** Some insects injurious to the violet, rose and other ornamental plants: A collection of articles dealing with insects of this class. [Rev. Ed.] Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **27**, 1901, (114, with pl.). 23 cm.

**Deventer, W. van.** Insecteneier . . . auf Zuckerrohr. (Holländisch) Arch. Java Suiker., Soerabaya, **11**, 1903, (437-446, 2 Taf.).

**Gibson, William Hamilton.** Blossom hosts and insect guests: how the heath family, the bluets, the figworts, the orchids and similar wild flowers welcome the bee, the fly, the wasp, the moth and other faithful insects; edited by Eleanor E. Davie; illustrated by the author. New York (Newson & Co.), [1901], (xix + 197, with front., illustr.). 20 cm.

**Packard, A**[lphens] S[pring]. Color-preference in insects. New York, N.Y., J. Ent. Soc., **11**, 1903, (132-137).

**Schenkling, C.** Die Spinnkunst der Insekten. Insektenbörse, Leipzig, **20**, 1903, (332-333).

**Schiller-Tietz.** Ameisen, Blattläuse und Honigtau an Kulturpflanzen. Schweiz. Bauer, Bern, **56**, 1902, No. 70, (5).

**Spaulding, Perley.** The relations of insects to fungi. Plant World, Washington, D.C., **6**, 1903, (182-184).

#### OVIPOSITION.

**Deventer, W. van.** Insecteneier . . . auf Zuckerrohr. (Holländisch) Arch. Java Suiker., Soerabaya, **11**, 1903, (437-446, 2 Taf.).

**Holmgren, Nils.** Ueber vivipare Insecten. Zool. Jahrb., Jena, Abt. f. Syst., **19**, 1903, (431-468).

#### SOUND PRODUCTION.

Sur la stridulation chez les insectes. Par. **X**. Feuille jeunes natural., Paris, (sér. 4), **33**, 1902, (13), d'après Morley, Cl. Field. Notes on stridulation. Ent. Mag., London, 1902, (249-250).

#### HABITAT.

**Redeke, H**[einrich] C[arl]. Plankton-Untersuchungen im „Zwanenwater“ bei Callantsoog. (Holländisch) Haarlem, Nat. Verh. Holl. Maatsch. Wet., (Verz. 3), **5**, 1903, (1-42, mit 5 Taf.).

#### INSTINCT AND PSYCHOLOGY.

**Andreas, Eugen.** Inwiefern werden Insekten durch Farbe und Duft der Blumen angezogen? Bot. Centralbl., Jena, Beihefte, **15**, 1903, (427-470).

**Distant, W. L.** Animal sense perceptions. Zoologist, London, (Ser. 4), **6**, 1902, (161-178).

**Glard, A.** Pourquoi les insectes de nuit sont-ils, de préférence, attirés par la lumière artificielle?—Réponse à la question de M. Guillard. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (202-203).

**Kellogg, Vernon L**yman]. Some insect reflexes. Science, New York, N.Y., (N. Ser.), **18**, 1903, (693-696).

#### SYMBIOSIS.

**Reuter, O**[do] M[orannal]. [Sonderbare Speisegenossen]. (Finnisch) Luonnon Ystävä, Helsingfors, **1903**, 10, (236-238).

**Viehmeier, H.** Kleinere Beiträge zur Biologie einiger Ameisengäste. Allg. Zs. Ent., Neudamm, **8**, 1903, (15-17).

#### PARASITISM.

**Chapman.** [Imago produced by a parasitised larva.] London, Proc. Ent. Soc., **1903**, (31).

**Dominikiewicz, Mieczysław.** Les chenilles des insectes comme parasites accidentels de l'homme. (Polonais) Zdrowie, Warszawa, **19**, 1903, (1070-1092).

**Hesse, Edmond.** Sur la présence de Microsporidies du genre *Thelozania* chez les insectes. Paris, C.-R. Acad. sci., **137**, 1903, (418-419).

**Léger, L. et Duboscq, O.** Les grégarines et l'épithélium intestinal chez les Trachéates. Arch. parasit., Paris, **6**, 1902, (377-473, av. fig. et 5 pl.).

**Melander, Axel Leonard, and Brues, Charles Thomas.** Guests and parasites of the burrowing bee *Halictus* [nn. spp. of Diptera and Hymenoptera] Wood's Holl, Mass., Mar. Biol. Bull., **5**, 1902, (1-27, with text-fig.).

**Schnittaler**, Franz. Ueber lebende Fremdkörper im Ohre. Diss. München (Druck v. C. Wolf & S.), 1901, (31). 21 cm.

#### DEFENSIVE PROCESSES.

**Hutton and Poulton**. Pseudomimicry. Nature, London, **67**, 1903, (439).

**Mercier**, L. Moyens de défense de quelques insectes. Feuilles jeunes natural., Paris, (sér. 4), **33**, 1903, (107-108).

**Poulton**. Value of transparent spaces. London, Proc. Ent. Soc., **1903**, (26-28).

**Fritchett**, Annie H. Some experiments in feeding lizards with protectively colored insects [with bibliography]. [Contribution from the zoological laboratory of the University of Texas, No. 52.] Wood's Holl, Mass., Mar. Biol. Lab. Bull., **5**, 1903, (271-287).

**Thayer**, A. H. Protective coloration in its relation to mimicry, common warning colours, and sexual selection. London, Trans. ent. Soc., **1903**, (553-569).

#### COLOUR AND ORNAMENT.

**Poulton**, E. B. A brief discussion of A. H. Thayer's suggestion as to the meaning of colour and pattern in insect bionomics. London, Trans. Ent. Soc., **1903**, (570-575).

#### UTILITY AND HARMFULNESS.

Obstbaumschädlinge aus der Klasse der Insekten (Bohrer). Schweiz.-Bauer, Bern, **57**, 1903, No. 27, (5). [2431].

Les insectes des livres. Par L. R. Nature, Paris, **30**, (2<sup>e</sup> semest.), 1902, (249-250).

**Chobant**, A. Les insectes du biscuit de troupe. Moyen de préservation. Paris, C.-R. cong. soc. sav. en 1902, **1903**, (102-107).

**Fass**, H[enri]. Sur quelques insectes nuisibles au printemps. Insectes nuisibles aux arbres fruitiers. Chron. Agric., Lausanne, **15**, 1902, (189-195,

297-305, 449-459, 521-532, av. 18 figs.).

**Froggatt**, Walter W. Insects that damage wheat and other foodstuffs. Agric. Gaz., Sydney, N.S.W., **14**, 1903, (481-492, 1 pl.).

**Höfer**, J. Beobachtungen und Versuche über Bekämpfung tierischer Feinde der Obstbäume, Weinreben und einiger Gartenpflanzen. Wädensweil, Jahresber. Versuchstation, **1902**, (108-121).

**Hopkins**, A. D. Insect enemies of the pine in the Black Hills forest reserve. An account of results of special investigations, with recommendations for preventing losses [New *Dendroctonus* and *Tomicus*]. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **32**, 1902, (24, with pl.). 23 cm.

**Krüger**, O. Die schädlichsten Forstinsekten auf der Kiefer und Schutzmassregeln gegen diese Insekten. Auf Grund vierzigjähriger Tätigkeit in Kiefernrevieren vom rein praktischen Standpunkte aus betrachtet. 2. verb. Aufl. Dessau (C. Dünhaupt), 1903, (44). 23 cm. 1 M.

**Mercer**, W. F. A few insects and plant diseases of special interest to farmers. Columbus, Ohio, Univ. Bull. St. Univ., (N. Ser.), **3**, 1901, (126-138).

**Mokriekij**, S. A. Verzeichnis der Insekten und anderer wirbelloser Thiere, welche im europäischen Russland und im Kaukasus an Weinreben gefunden wurden. (Russ.) Ausg. d. Minist. d. Landwirthsch. u. d. Staatsdom. St. Petersburg, 1903, (39). 23 cm.

**Rehberg**, A. Schädliche Insekten Westpreussens und deren Bekämpfung. Dantzig, Schr. natf. Ges., (N.F.), **10**, H. 4, 1902, (64-81).

**Reuter**, Enzo. Beiträge zu einer statistischen Untersuchung über die Ursachen der Weissähigkeit an den Wiesengräsern in Finland. Helsingfors, Comptes rendus du Congrès des Naturalistes et Médecins du Nord tenu à Helsingfors du 7 au 12 juillet 1902, **1903**, VI Section, (20-26).

——— [Bericht über das Auftreten schädlicher Insekten in Finland im Jahre 1901.] (Schwedisch) Landtbr.-Styr. Medd., Helsingfors, **39**, 7, 1902, (1-74).

**Sambon, L. W.** Principles determining the geographical distribution of disease. *J. trop. Med.*, London, **5**, 1903, (101-106).

**Sherman, Franklin, jun.** Injurious insects. Raleigh, N. C., *Bull. St. Brd. Agric.*, **24**, 1903, (3-29).

**Stebbing, E. P.** Insect pests of the sugar cane in India. Calcutta, Ind. *Mus. Notes*, **5**, 1903, (64-91).

Departmental notes on insects that affect forestry. No. 2. Calcutta, 1903, (V-VII + 151-334, with 13 pls.).

**Vasiljev, I. V.** Ueber Insecten, welche 1900 in Gouv. Char'kov den Kiefern schaden (Vorläufige Mittheilung). (Russ.) *St. Peterburg, Hor. Soc., Ent. Ross.*, **36**, 1903, (VIII-X).

**Webster, F. M.** Some insects attacking the stems of growing wheat, rye, barley and oats, with methods of prevention and suppression. [Life histories and descriptions of species of *Isosoma*, *Micromyza*, and *Oscinis*.] Washington, D.C., U. S. Dept. Agric. Div. Ent., No. **42**, 1903, (62). 23 cm.

## 2423 VARIATION AND ÆTIOLOGY.

### GENERAL.

**Bachmetjew, P.** Analytisch-statistische Methode [Variation]. *Allg. Zs. Ent.*, Neudamm, **8**, 1903, (37-44).

Bevorstehende Untersuchungen für Entomologen. *Ent. Jahrb.*, Leipzig, **12**, 1903, (103-107).

**Doncaster.** Varieties confined to one sex. *Ent. Rec.*, London, **15**, 1903, (237).

**Feyerimhoff, P. de.** Sur la méthode dans les recherches de phylogénie entomologique. *Feuille jeunes natural.*, Paris, (sér. 4), **33**, 1903, (89-95).

### BIONOMIC VARIATION.

**Krassnichik, I. M.** Zur Frage über die Einwirkung der Gifte auf die Insecten. (Russ.) *Trd. B. entom. Učen. Kom. M. Zeml.*, St. Peterburg, **IV**, No. 3, 1903, (25).

**Masarakij, V. V.** Frühlingsexursionen in der Umgebung St. Peterburg, 1901. Der Frühling 1901, im Gouv. St. Peterburg. (Russ.) *St. Peterburg, Hor. Soc. Ent. Ross.*, **36**, 1903, (XXXV-XLIV).

### EVOLUTION.

**Fry, Sir E.** [Letter] on natural selection. *Nature*, London, **67**, 1903, (414). Cf. Galton, *ib.*, (343)

**Patten, William.** On the structure of the *Pteraspidae* and *Cephalaspidae*. [With bibliography.] *Amer. Nat.*, Boston, Mass., **37**, 1903, (827-865, with pl.).

## 2427 GEOGRAPHICAL DISTRIBUTION.

**Longin Navas.** Espèces cosmopolites et localisées [à propos d'une question de M. G. de Rocquigny Adanson, *Feuille jeunes natural.*, p. 85]. *Feuille jeunes natural.*, Paris, (sér. 4), **33**, 1903, (108).

### d EUROPE.

#### db RUSSIA IN EUROPE.

**Mokriščekij, S. A.** Verzeichnis der Insecten und anderer wirbelloser Thiere, welche im europäischen Russland und im Kaukasus an Weinreben gefunden wurden. (Russ.) *Ausg. d. Minist. d. Landwirthsch. u. d. Staatsdom.*, St. Peterburg, 1903, (39). 23 cm.

**Tarnani, I. K.** Insecten, welche dem Obstbau und der Gemüsegärtnerei in den Gouvernements des Zarenthums Polen schädlich werden u. d. Mittel zur Bekämpfung dieser Insecten. (Russ.) *Varšava*, 1903, (138, mit 135 Fig.). 25 cm.

#### dc GERMAN EMPIRE.

**Frühlich.** Ueber das Vorkommen von *Pachytulus cinerascens* Fieb. und anderer Insekten bei Kahl am Main. *Berliner ent. Zs.*, **48**, 1903, (146-148).

**Lange, C.** Fünfter Beitrag zur Insektenfauna des oberen Erzgebirges. *Annaberg, Ber. Ver. Natk.*, **11**, (1898-1903); 1903, (23-33).

**Rehberg, A.** Schädliche Insekten Westpreussens und deren Bekämpfung. Danzig, Schr. natf. Ges., (N.F.), **10**, H. 4, 1902, (64-81).

*df* FRANCE.

**Sainte-Claire Deville, J.** Exploration entomologique des grottes des Alpes-Maritimes. Ann. soc. ent., Paris, **71**, 1902, [1903], (695-709, av. fig.).

**Thibault, J.** Mes chasses entomologiques en 1902. Elbeuf, Bul. soc. étud. sci. nat., **21**, (1902), 1903, (37-42).

*dk* AUSTRIA-HUNGARY.

**Horváth, Geza.** Die Insektenfauna der kochsalz- und sodahaltigen Gebiete Ungarns. Allatt. Közlem., Budapest, **2**, 1903, (206-211).

**Melichar, L.** Eine entomologische Exkursion nach Bosnien und Herzegowina. Ent. Jahrb., Leipzig, **12**, 1903, (91-102).

*dl* BALKAN PENINSULA.

**Holtz, Martin.** Reiseerinnerungen aus dem Peloponnes. Insektenbörse, Leipzig, **20**, 1903, (4-5, 12, 28, 35-36, 43, 50-51, 67-68, 75-76, 83-85, 92-93).

*e* ASIA.

*cc* JAPANESE ISLANDS.

**Marlatt, C[harles] L[ester].** Applied entomology in Japan. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., No. **40**, 1903, (56-63, with pl.).

*cd* COCHIN CHINA: TONQUIN.

**Glaybrooke, J. de.** Note sur quelques insectes du Tonkin provenant des environs d'Hanoi. Bul. Muséum, Paris, **1903**, (132-133).

*f* AFRICA.

*fg* SOUTH AFRICA.

**C[alvert], P. P.** Five years' observations and experiments on the bionomics of South African insects . . . by

Guy A. Marshall . . . [Review]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (91-96).

**Péringuay, L.** Some phases of insect life in South Africa. Phonation in insects. Cape Town, Trans. S. Afric. Phil. Soc., **14**, 1903, (i-viii).

*g* NORTH AMERICA.

*gf* UNITED STATES.

U. S. DEPARTMENT OF AGRICULTURE, DIVISION OF ENTOMOLOGY. [Leland Ossian Howard, Entomologist.] Some miscellaneous results of the work of the division of entomology. 5. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **30**, 1901, (98, with pl.). 23 cm.; 6. *l.c.* No. **38**, 1902, (110, with pl.). 23 cm.

**Murtfeldt, Mary E.** Drought, heat, and insect life in the Mississippi Valley. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **31**, 1902, (97-99).

**Slosson, Annie Trumbull.** Additional list of insects taken in Alpine region of Mt. Washington. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (4-8).

**Webster, F. M.** Some insect notes of the year. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., No. **40**, 1903, (93-96).

*gg* NORTH EASTERN UNITED STATES.

**Comstock, G. F.** A list of Lepidoptera found in the Adirondack Mts. [with list of other insects]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (197-200).

**Felt, E[phraim] P[orter].** Aquatic insects of the Saranac region. New York, Forest Fish. Game Com. Rep. Albany, **1900**, 1901, (499-531, with col. pl.).

**Fernald, C. H. and Fernald, H[enry] T[orsey].** [Insects prevalent in Massachusetts in 1901.] Agric. Exp. Sta., Massachusetts, Amherst, Rep., **1901**, (86-88).

**MacGillivray, Alex. and Houghton, C. O.** A list of insects taken in the Adirondack Mountains, New York. 1.

[Coleoptera.] Philadelphia, Pa., Ent. News Acad. Nat. Sci. **13**, 1902, (247-253); 2. [Diptera.] *l.c.* **14**, 1903, (12-13); 3. *l.c.*, (262-265).

**Melander, Axel Leonard.** Some additions to the Carboniferous terrestrial Arthropod fauna of Illinois. Chicago, Ill., J. Geol. Univ. Chic., **11**, 1903, (178-193, with pl.).

**Needham, James G., MacGillivray, Alex. D., Johannsen, O. A. and Davis, K. C.** Aquatic insects in New York State. A study conducted at the entomologic field station, Ithaca, N.Y., under the direction of Ephraim Porter Felt. Albany Univ., N.Y., Bull. St. Mus., No. **68**, (Entomology 18 and University Bulletin 295), 1903, ([197]-517, with pl.). Separate. 22.8 cm.

**Osborn, Herbert.** Insects of the season in Ohio. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., No. **40**, 1903, (45-47).

**Pettit, R. H.** Some insects of the year 1901. Agric. Exp. Sta., Michigan, Agricultural College, Bull. No. **200**, 1902, (179-212, with 21 figs.); [review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., **14**, 1902, (267-268).

**Slosson, Annie Trumbull.** Additional list of insects taken in Alpine region of Mt. Washington [nn. spp. in Parasitica]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (319-321).

**Webster, F. M. and Newell, Wilmon.** Insects of the year in Ohio. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **31**, 1902, (84-90).

**Weed, Clarence M[oores].** Insect record for 1900. Agric. Exp. Sta., New Hampshire, Durham, Bull. No. **81**, 1901, (9-22, with 11 figs.); [review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., **13**, 1902, (667).

——— Insect record for 1901. Agric. Exp. Sta., New Hampshire, Durham, Bull. No. **90**, 1902, (29-44, with 12 figs.); [review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., **14**, 1902, (268).

——— Notes from New Hampshire. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., No. **40**, 1903, (50-52).

*gh* SOUTH EASTERN UNITED STATES.

**Hebard, Morgan.** A few captures made at Miami, Florida. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (253).

——— Notes on the collecting around Thomasville, Georgia. *l.c.* (260-261).

**Quaintance, A. L.** Entomological notes from Maryland. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., No. **40**, 1903, (47-50).

**Sanderson, E[ra] D[wight].** Report of the entomologist. [Including notes on *Aphis* and *Euzophera semifuneralis*. Agric. Exp. Sta., Delaware, Newark, Rep., **1901**, (127-179, with 6 pls., 16 figs.); [review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., **14**, 1902, (268-269).

**Sherman, Franklin, jun.** Injurious insects. Raleigh N.C., Bull. St. Brd. Agric., **24**, 1903, (3-29).

*gi* WESTERN UNITED STATES.

**Blaisdell, F. E.** The three Californias [Three faunal areas of California]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (173-175).

**Caudell, A. N.** Notes on Colorado insects. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **38**, 1902, (35-38).

**Coquillett, D. W.** Some insects of the Hudsonian zone in New Mexico. Diptera. Psyche, Cambridge, Mass., **9**, 1901, (149-150).

**Gillette, C. P.** Notes on some Colorado insects. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **31**, 1902, (51-55).

**Hoag, M. C.** [The Moreno valley and Ute creek districts as collecting regions.] Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (59).

**Sellards, E. H.** Discovery of fossil insects in the Permian of Kansas. Amer. J. Sci., New Haven, Conn., (Ser. 4), **10**, 1903, (323-324).

**Skinner, Henry.** A list of the insects of Beulah, New Mexico. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1902-1903, (35-117). [Includes papers by Skinner, Viereck, Calvert, Rehn, Van Duzee, Cockerell, and Johnson.]

**Ulrich, Carl Jost.** A contribution to the subterranean fauna of Texas [Arthropoda, with nu. spp. in Crustacea, Arachnida and Aptera]. Contributions from the Zoological Laboratory of the Indian University, No. 34, in Lincoln, Nebr. Trans. Amer. Microsc. Soc., **23**, 1901, [1902], (83-100, with pl.).

#### h CENTRAL AND SOUTH AMERICA.

##### ha MEXICO.

**Hoag, M. E.** Collecting in Mexico. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (319-322).

##### hc WEST INDIAN ISLANDS.

**Schwarz, E. A.** A letter from Cuba. [Containing entomological notes.] Washington, D.C., Proc. Ent. Soc., **5**, 1903, (286-289).

##### he ECUADOR.

**Haensch, Rich[ard].** Kurzer Bericht über die entomolog. Ergebnisse meiner Ecuador-Reise. Berliner ent. Zs., **48**, 1903, (149-156).

#### i AUSTRALASIA.

##### ib BISMARCK ARCHIPELAGO.

**Rainbow, W. J.** [Arthropoda (Arachnida and Insecta) of the Gilbert Group]. Sydney, N.S.W., Rec. Austr. Mus., **5**, 1903, (5-7).

#### o ANTARCTIC.

**Enderlein, Günther.** Die Landarthropoden der von der Tiefsee-Expedition besuchten antarktischen Inseln. I. Die Insekten und Arachnoideen der Kerguelen. II. Die Landarthropoden der antarktischen Inseln St. Paul und Neu-Amsterdam. (Wissenschaftliche Ergebnisse der deutschen Tiefsee-Expedition. Bd 3, Lfg 7.) Jena, 1903, (197-270, mit 10 Taf.). 35 cm.

## 2431 TAXONOMY.

**Carpenter, S. H.** On the relationships between the classes of Arthropoda. Dublin, Proc. R. Irish Acad., **24**, 1903, (320-360).

**Claybrooke, J. de.** Note sur quelques insectes du Tonkin provenant des environs d'Hanoi. Bul. Muséum, Paris, **1903**, (132-133).

**Deventer, W. van.** Insecten- (auch Spinnen-) eier . . . auf Zuckerrohr. (Holländisch) Arch. Java Suiker., Soerabaia, **11**, 1903, (437-446, 2 Taf.).

**Enderlein, G.** Die Landarthropoden der von der Tiefsee-Expedition besuchten antarktischen Inseln. I. Die Insekten und Arachnoideen der Kerguelen. II. Die Landarthropoden der antarktischen Inseln St. Paul und Neu-Amsterdam. (Wissenschaftliche Ergebnisse der deutschen Tiefsee-Expedition. Bd 3, Lfg 7.) Jena, 1903, (197-270, mit 10 Taf.). 35 cm.

**Packard, A. S.** Hints on the classification of the Arthropoda; the group a polyphyletic one. Philadelphia, Pa., Proc. Amer. Phil. Soc., **42**, 1903, (142-161).

**Pérez, C.** Contribution à l'étude des métamorphoses. Bul. sci. France-Belgique, Paris, **37**, 1902, (195-433, av. pl.); Thèse Fac. sci., Lille, 1902, (240, av. 3 pls.). 25 cm.

**Feyerimhoff, P. de.** Sur l'état de la systématique en entomologie, principalement chez les coléoptères. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (37-42).

— Sur la méthode dans les recherches de phylogénie entomologique. Lc. (89-95).

— La larve des insectes métabola et les idées de Fr. Brauer. Lc. **34**, 1903, (21-26).

**Redeks, H. C.** Plankton - Untersuchungen im „Zwanenwater“ bei Callantsoog. (Holländisch) Haarlem, Nat. Verh. Holl. Maatsch. Wet., (Verz. 3), **5**, 1903, (1-42, mit 5 Taf.).

**Sainte-Claire Deville, J.** Exploration entomologique des grottes des Alpes-Maritimes. Ann. soc. ent., Paris, **71**, 1902, [1903], (695-709, av. fig.).

**Standfuss, M.** Zur Frage der Unterscheidung der Arten bei den Insekten. Ent. Zs., Guben, **16** (1902-03), 1902, (1-2).

**Thibault, J.** Mes chasses entomologiques en 1902. Elbeuf, Bul. soc. étud. sci. nat., **21**, (1902), 1903, (37-42).

## 2603-2631 CRUSTACEA.

## TITLES.

- Appellöf**, A[nders]. Researches on the development of the lobster, 1902. (Norw.) Bergen, Norsk Fisket., **22**, 1903, (114-132). [2615]. 1
- Augener**, H. Beiträge zur Kenntnis der Gephyreen nach Untersuchung der im Göttinger Zoologischen Museum befindlichen Sipunculiden und Echiuriden. Arch. Natg., Berlin, **69**, Bd. 1, 1903, (297-371, mit 5 taf.). [1831 1807 1431 2631 2619]. 1A
- Barnard**, F. G. A. Excursion to Launching Place [Victoria]. [14 species.] Vict. Nat., Melbourne, **19**, 1903, (147-148). [2227 if 2231 2627 if 2631 4827 if 4831]. 2
- Bassett-Smith**, P. W. On new parasitic Copepoda from Zanzibar and East Africa collected by Cyril Crossland, B.A., B.Sc. London, Proc. Zool. Soc., **1903**, 1, (104-109, with 2 text-figs.). [2619 2631]. 3
- Benedict**, James E[verard]. Revision of the Crustacea of the genus *Lepidopa*. Washington, D.C., Smithsonian Inst., Nation. Mus. Proc., **26**, 1903, (889-895). [2631]. 4
- Benham**, W. Blaxland. On some remains of a gigantic fossil Cirripede from the Tertiary Rocks of New Zealand. Geol. Mag., London, [4], **10**, 1903, (110-119, pls. IX, X). [2607 2631]. 5
- Berndt**, Wilhelm. Zur Biologie und Anatomie von *Alciippe lampas* Hancock. Zs. wiss. Zool., Leipzig, **74**, 1903, (396-457, mit 4 Taf.). [2607 2631]. 6
- . Die Anatomie von *Cryptophilus striatus* n. sp. Berlin, SitzBer. Ges. natf. Freunde, **1903**, (436-444). [2631 2607]. 7
- Biétreix**, E. v. Fabre-Domergue. (N 2-9053)
- Bohn**, Georges. Des mécanismes respiratoires chez les Crustacés décapodes: essai de physiologie évolutive, éthologique et phylogénique. Bul. sci. France-Belgique, Paris, **36**, 1902, (178-551, av. fig.). [2611 2623 2619 2631]. 8
- Bonnier**, Jules. Sur deux types nouveaux d'Epicarides, parasites d'un Cumacé et d'un Schizopode. Paris, C.-R. Acad. sci., **136**, 1903, (102-103). [2619 2631]. 9
- Borradaile**, L. A. On the genera of the *Dromiidae*. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (297-303). [2631]. 10
- . On the classification of the Thalassinidea. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (534-551); Addendum, *ib.*, (638). [2631]. 11
- . Marine Crustaceans. IV. Some remarks on the classification of the crabs. V. The crabs of the Catometope families. VI. The sand crabs (*Oxytomata*). VII. The Barnacles (*Cirripedia*). In: Gardiner, The Fauna and Geography of the Maldives and Laccadive Archipelagoes, **1**, pt. 4, (424-443, pl. XXII, and text-figs. 110-119); IX. The sponge-crabs (*Dromiacea*). *ib.*, **2**, pt. 1, (574-578, pl. XXXIII); X. The spider-crabs (*Oxyrhyncha*). XI. On the classification and genealogy of the reptant Decapods. *ib.*, pt. 2, (681-698, pls. XLVII-XLVIII, text-figs. 122-126). [2603 2631]. 12
- Brady**, George Stewardson. List of the Ostracoda collected by Mr. George Murray, F.R.S., during the cruise of the "Oceana" in 1898. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (337-339). [2631]. 13



**Brady, George Stewardson.** Report on dredging and other marine research off the north-east coast of England in 1901. Newcastle, Trans. Nat. Hist. Soc., **14**, 1903, (87-101). [2227 de 2231 2627 de 2631]. 14

**Brian, Alessandro.** Sostituzione di nome al nuovo genere di Crostaceo Lerneide: *Silvestria mihi* (= *Leptotrachelus mihi*). Zool. Anz., Leipzig, **26**, 1903, (547). [2631]. 15

**Brues, C. T.** A Dexid parasite [*Melanophora roralis*] of the sow-bug [*Porcellio*]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., Amer. Ent. Soc., **14**, 1903, (291). [2631 4219 4231]. 16

**Calman, W. T.** On Macrurous Crustacea obtained by Mr. George Murray during the cruise of the "Oceana" in 1898. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (416-420). [2631]. 17

**Chevreaux, Ed.** Amphipodes recueillis par M. P. Labbé dans les parages du lac Baikal (1902-1903). Bul. Muséum, Paris, **1903**, (222-224). [2631 2627 ea]. 18

**Clapp, Geo. H.** Protective coloration in *Cambarus virilis* Hagen. Pittsburg, Pa., Ann. Carnegie Mus., **1**, 1901, (253). [2619 2631]. 19

**Coker, Robert E.** Notes on a species of barnacle (*Dichelaspis*) parasitic on the gills of edible crabs. [With bibliography.] Washington, D.C., Bull. U. S. Fish Com., **21**, (1901), 1902, (399-412, with text fig.). [2619 2631]. 20

**Cuénot, L.** L'organe phagocytaire des crustacés décapodes. Paris, C.-R. Acad. sci., **137**, 1903, (619-621). [2611 2631]. 21

**Cunningham, J. T.** Report on the experiments in oyster and lobster culture in 1902, with summary of the work from 1897. Falmouth, Rep. R. Cornwall Poly. Soc., **70**, 1903, (27-39). [0060 2603 2615]. 22

**Cunnington, William A.** Studien an einer Daphnide *Simoecephalus sima*. Beiträge zur Kenntnis des Centralnervensystems und der feineren Anatomie der Daphniden. Jenaische Zs. Natw., **37**, 1903, (447-520, mit 3 Taf.). [2607 2631]. 23

**Daday, E[ugen] von.** Eine neue Cladoceren-Gattung aus der Familie der Bosminiden. (Vorläuf. Mitt.). Zool. Anz., Leipzig, **26**, 1903, (594-597). [2631]. 24

——— Mikroskopische Süßwasserthiere der Umgebung des Balaton. Zool. Jahrb., Jena, Abt. f. Syst., **19**, 1903, (37-98, mit 2 Taf.). [0227 dk 2631]. 25

——— Mikroskopische Süßwasserthiere aus Turkestan. (Ungarisch) Math. Term. Ért., Budapest, **21**, 1903, (324-357). [0227 ei 1431 2631 3031]. 26

**Doflein, F[ranz].** Die Augen der Tiefseekrabben. Hab.-Schr. München. Leipzig (G. Thieme), 1903, (24). 23 cm. [2607 2619]. 27

**Dollfus, A.** Sur la diminution progressive de la pigmentation oculaire chez *Cirolana neglecta*. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (65). [2615 2631]. 28

**Douwé, Carl van.** Zur Kenntnis der freilebenden Süßwasser-Copepoden Deutschlands: *Cyclops crassicaudis* Sars. Zool. Anz., Leipzig, **26**, 1903, (463-465). [2631]. 29

——— Beitrag zur Kenntnis der Copepodenfauna Bulgariens. Zool. Anz., Leipzig, **26**, 1903, (550-553). [2627 dl 2631]. 30

——— Zur Kenntniss der Süßwasser-Harpacticiden Deutschlands. Zool. Jahrb., Jena, Abt. f. Syst., **18**, 1903, (383-400, mit 1 Taf.). [2627 de 2631]. 31

**Duncker, Georg.** Ueber Asymmetrie bei *Gelasinus pugillator* Latr. Biometrika, Cambridge, **3**, 1903, (307-320). [2623 2631]. 32

**Ehrenbaum, [E.].** Neuere Untersuchungen über den Hummer. Berlin, Mitt. D. Seefischereiver., **19**, 1903, (146-159). [2631]. 33

**Fabre-Domergue et Biéatrix, E.** Le mécanisme de l'émission des larves chez la femelle du homard européen. Paris, C.-R. Acad. sci., **136**, 1903, (1408-1409); [abstract], London, J. R. Microsc. Soc., **1903**, (723). [2619 2631]. 34

**Farran, G. P.** Record of the Copepoda taken on the mackerel fishing grounds off Cleggan, Co. Galway, in

1901. Report on the Sea and Inland Fisheries of Ireland for the year 1901 [1903]. Part II, Appendix. No. VII, (105-120). [0020 2603 2631]. 35

**Fowle, Elizabeth W.** A study in the heliotropism of *Cypridopsis*. [With bibliography.] [Reprint from Amer. J. Physiol., Boston, Mass., 3, 1900, (345-365).] Bryn Mawr, Pa., Bryn Mawr Coll. Monogr., (Repr. Ser.), 1, 1901, (345-365). [0219 2619 2631]. 36

**Fowler, G. Herbert.** Contributions to our knowledge of the Plankton of the Faeroe Channel. No. viii. [Notes on Copepoda by R. Norris Wolfenden.] London, Proc. Zool. Soc., 1903, 1, (117-133, 5 text-figs.). [2615 2619 2631 0819 0827 da 0831]. 37

**Fritel, P. H.** Crustacés fossiles. Naturaliste, Paris, (sér. 2), 24, 1902, (269-271, av. fig.). [2631]. 38

——— Crustacés fossiles. Les Thoracostracés. Naturaliste, Paris, (sér. 2), 25, 1903, (29-32). [2631]. 39

**Gariaev, V. P.** Bericht über eine Reise zur Untersuchung der Evertebratenfauna des Baikal-Sees im Sommer 1900-1901. (Russ.) St. Petersburg, Trd. Troick-Klacht. Otd. Russ. Geogr. Obšč., V, 2, 1902, [1903], (27-48, mit 1 Karte). [0627 0227 1827 2027 2227 2627 0631 1231 1831 2031 2231 2631]. 40

**Giesbrecht, W.** Zoologie. Copepoden. In: Expedition antarctique belge. Résultats du voyage du S.Y. "Belgica" en 1897-99. Rapports scientifiques. Anvers (Imprimerie J. E. Buschmann), 1902, (49, av. XIII pls. hors texte). 25 fr. [2627 o 2631]. 41

**Gill, Theo[dore] [Nicholas].** The hosts of argulids and their nomenclature [Criticism of C. B. Wilson's North American parasitic copepods of the family Argulidae]. Science, New York, N.Y., (N. Ser.), 17, 1903, (33). [2619 5419 5431]. 42

**Godon, J.** *Orchestia carimana* Heller. Feuille jeunes natural., Paris, (sér. 4), 33, 1903, (50). [2631]. 43

**Graeter, Alb.** Die Copepoden der Umgebung Basels. Rev. Suisse Zool., Genève, 11, 1903, (419-541, mit 2 Taf.). [2627 di 2631]. 44

(n 2-9053)

**Gravel, A.** Cirrhipèdes operculés nouveaux ou peu connus de la collection du Muséum. Bul. Muséum, Paris, 1903, (23-25). [2631]. 45

——— Revision des Cirrhipèdes appartenant à la collection du Muséum d'Histoire naturelle. Nouv. Arch. Muséum, Paris, (sér. 4), 4, 1902, (215-312, av. fig. et pl.); 5, 1903, (95-170, av. pl.). [2627 2631]. 46

——— Description of a new species of *Balanus* from the collection of the British Museum. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (297). [2631]. 48

**Gurney, Robert.** The metamorphosis of the Decapod Crustaceans *Aegeon* (*Crangon*) *fasciatus* Risso, and *Aegeon* (*Crangon*) *trispinosus* (Hailstone). London, Proc. Zool. Soc., 1903, 2, (24-30, pls. V-VI). [2615 2631]. 49

——— Notes on *Scapholeberis aurita* (S. Fischer), a Cladoceran new to Britain. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (630-633, with 2 text-figs.). [2619 2627 de 2631]. 50

——— The larvae of certain British *Crangonidae*. Plymouth, J. Mar. Biol. Ass., (N. Ser.), 6, 1903, (595-597). [2615]. 51

**Monstrilla helgolandica** Claus, at Plymouth. Plymouth, J. Mar. Biol. Ass., (N. Ser.), 6, 1903, (627). [2627 de 2631]. 52

**Haase, J. F.** Records of some Victorian Entomostraca. Vict. Nat., Melbourne, 19, 1903, (148-150, with 1 pl.). [2619 2627 if 2631]. 53

**Hansen, H. J.** On the Crustaceans of the genera *Petalidium* and *Sergestes* from the "Challenger," with an account of luminous organs in *Sergestes challengerii* n. sp. London, Proc. Zool. Soc., 1903, 1, (52-79, pls. XI, XII). [2607 2627 n 2631]. 54

——— The deep-sea Isopod *Anuropus branchiatus* Bedd. and some remarks on *Bathynomus giganteus* A. M. Edw. London, J. Linn. Soc. Zool., 29, 1903, (12-25, pl. IV); [abstract], London, J. R. Microsc. Soc., 1903, (611, 612). [2607 2631]. 55

——— The *Ingolfiellidae* fam. n., a new type of Amphipoda. London, J. Linn. Soc. Zool., 29, 1903, (117-133, pls. XIV, XV). [2607 2631]. 56

**Hansen, H. J.** On a new species of *Sergestes* obtained by Mr. George Murray during the cruise of the "Oceana" in 1898. *Ann. Mag. Nat. Hist.*, London, (Ser. 7), **11**, 1903, (479-481, with 7 figs. in text). [2627 l 2631]. 57

**Harris, J. Arthur.** The habits of *Cambarus*. *Amer. Nat.*, Boston, Mass., **37**, 1903, (601-608); [abstract], *London, J. R. Microsc. Soc.*, **1903**, (723). [2619 2631]. 58

**Hartog, Marcus.** Notes on the method of feeding of Phyllopods and Cladocera. *The American Monthly Microscopical Journal*, Washington, D.C., **23**, 1902, (131-132). [2619 2631]. 59

**Hay, William Perry.** On a small collection of crustaceans from the island of Cuba. *Washington, D.C., Smithsonian Inst., Nation. Mus. Proc.*, **26**, 1903, (429-435). [2627 h 2631]. 60

**Herdman, W. A.** The new biological station at Port Erin, being the 16th annual report of the Liverpool Marine Biology Committee. *Liverpool, Trans. Biol. Soc.*, **17**, 1903, (15-67). [0827 de 5427 de 2227 de 2627 de 1227 de 1803]. 61

**Herriek, Francis H[obart].** The reproductive period in the lobster. *Washington, D.C., Bull. U. S. Fish Com.*, **21**, (1901), 1902, (161-166, with text fig.). [2619 2615 2631]. 62

**Hey, W. C.** Shore-collecting at Scarborough and Filey. *Naturalist*, London, **1903**, (344-348). [1027 de 2227 de 2627 de]. 63

**Hoffmann, Wilh.** Das Gleichgewichts-Sinnesorgan (Statocyste) bei den Krebsen. *Naturfreund*, Witten, **2**, 1903, (11-13). [2611]. 64

**Holmes, S. J.** Death-feigning in terrestrial amphipods. *Wood's Holl, Mass., Mar. Biol. Lab. Bull.*, **4**, 1903, (191-196); [abstract], *London, J. R. Microsc. Soc.*, **1903**, (723). [2619 2631]. 65

**Holmes, S. G.** Sex recognition among Amphipods. *Wood's Holl, Mass., Mar. Biol. Lab. Bull.*, **5**, 1903, (288-292). [2619 2631]. 65A

——— *Synopses of North American Invertebrates*. **18.** The Amphipoda [of the Atlantic Coast]. *Amer. Nat.*, Boston, Mass., **37**, 1903, (267-292). [2627 g 2631]. 66

**Jones, T. Rupert.** On some *Isochilinae* from Canada and elsewhere in North America. *Geol. Mag.*, London, [4], **10**, 1903, (300-304, with 3 text figs.). [2627 g 2631]. 67

**Kališevskij, M. Th.** Zur Frage ueber die frühen Entwicklungsstadien der Crevette *Palaemon (Leander) rectirostris* Zadd. (Russ.) *Odessa, Ann. Soc. Nat.*, **25**, Liefg 2, 1903, (134-138). [2615 2631]. 68

**Kane, W. F. de Vismes.** A contribution to the knowledge of Irish freshwater Entomostraca. *Cladocera*. *Irish Nat.*, Dublin, **12**, 1903, (210-218, and note on 273). [2627 de 2631]. 69

——— A rare blind Amphipod from Lough Mask. [With note by A. M. Norman.] *Irish Nat.*, Dublin, **12**, 1903, (273-274). [2619 2627 de 2631]. 70

**Keeble, F. and Gamble, F. W.** The colour physiology of the higher crustaceans. *London, Phil. Trans. R. Soc.*, **196 B**, 1903, (295-388). [0211 2611]. 71

**Kirkaldy, G. W.** Note on the phototropism of *Daphnia*. *J. Quek. Microsc. Cl.*, London, (Ser. 2), **8**, 1903, (465-466); [abstract], *London, J. R. Microsc. Soc.*, **1903**, (497). [2619 2631]. 72

[Kishinouye, Kamakichi.] The sand balls made by crabs. (Japanese) *Dobuts. Z.*, Tokyo, **15**, 1903, (372-373). [2619]. 73

**Klooke, Eduard.** *Bosminopsis* in Japan. (German) *Annot. Zool. Jap.*, Tokyo, **4**, 1903, (123-135, with pl.). [2607 2627 ee 2631]. 74

**Koltzoff, Nicolas.** Sur la réorganisation des corpuscules centraux. *Paris, C.-R. soc. biol.*, **55**, 1903, (135-137). [2615]. 75

——— Untersuchungen über Spermien und Spermio-genese bei Decapoden. *Vorläufige Mitteilung. Anat. Anz.*, Jena, **24**, 1903, (83-95). [2615 2631]. 76

**Korotnev, A.** Bericht an des Minist. der Landwirtschaft u. d. Staatsdomänen über die Thätigkeit der zoologischen Expedition auf dem Baikalsee im Sommer des Jahres 1902. (Russ.) *Moskva*, 1902, (27, mit 9 Fig. u. 1 Karte). 26 cm. [0227 2619 5431]. 77

**Kotte, Erich.** Beiträge zur Kenntniss der Hautsinnesorgane und des peripheren Nervensystems der Tiefsee-Decapoden. Zool. Jahrb., Jena, Abt. f. Anat., 17, 1903, (619-658, mit 5 Taf.). [2607 2619 2631]. 78

**Labbé, Alphonse.** Sur la spermatogénèse des crustacés décapodes. Paris, C.-R. Acad. sci., 137, 1903, (272-274). [2615]. 79

**Lampert, Kurt.** Ein seltener Kruster Deutschlands. [*Apus cancriformis*]. Natur. u. Schule, Leipzig, 1, 1902, (128-134). [2631]. 80

**Lamplugh, G. W.** Ostracoda in the Geology of the Isle of Man. Mem. Geol. Surv. U. K., London, 1903, (257); Cirripedia, ib., (473). [2627 de 2631]. 81

**Lanchester, W. F.** On the Crustacea collected during the "Skeat Expedition" to the Malay Peninsula. London, Proc. Zool. Soc., 1902, 2, [1903], (363-381, pls. XXXIV-XXXV). [Terrestrial Isopoda descr. by Gustav Budde-Lund.] [2627 eg 2631]. 82

Marine Crustaceans. VIII. Stomatopoda, with an account of the varieties of *Gonodactylus chiragra*. In Gardiner, The Fauna and Geography of the Maldive and Laccadive Archipelagoes, 1, pt. 4, (444-458, pl. XXIII). [2623 2627 ma 2631]. 83

**Lankester, E. Ray.** On the modification of the eye peduncles in crabs of the genus *Cymonotus*. London, Q. J. Microsc. Sci., (N. Ser.), 47, 1903, (439-463, pls. XXXIII, XXXIV, 12 text figs). [Notes by A. M. Norman and W. T. Calman]. [2623 2631]. 84

**Launoy, L.** Les phénomènes de pyrnolyse dans les cellules de la glande hépatopancréatique de l'*Eupagurus bernardus*. Paris, C.-R. Acad. sci., 136, 1903, (109-112). [2611 2631]. 85

**Lepri, G.** Nota preliminare sopra una forma cieca di *Asellus*. Mon. Zool. Ital., Firenze, 13, 1902, (Supplemento), (37-38). [2623 2631]. 86

**Linko, A.** Die Cladoceren des Ilmen-Sees und benachbarter Gegenden. (Russ.) Nickolsk Fischzucht., St. Petersburg, 1903, No. 7, (50-61, deutsches Res., 61-66). [2619 2627 db 2631]. 87

Die Cladoceren des Weissen Sees und einiger angrenzender Seen.

(Russ.) Nikolsk Fischzucht., St. Petersburg, 1903, No. 7, (66-78, deutsches Res. 78). [2627 2631]. 88

**Lo Bianco, Salvatore.** Le pesche abissali eseguite da F. A. Krupp col yacht Puritan nelle adiacenze di Capri ed in altre località del Mediterraneo. Mitt. Zool. Stat. Neapel, Berlin, 16, 1903, (109-279, mit Taf.). [0219 0227 dm 0231 0431 2231 1631 2631]. 89

v. Monticelli, F. S.

**Lönnberg, Einar.** Ueber eine Zwischenform zwischen *Mysis oculata* Fabr. und *Mysis relicta* (Loven). Zool. Anz., Leipzig, 26, 1903, (577-581); [abstract], London, J. R. Microsc. Soc., 1903, (611). [2631]. 90

**Lörenthey, E.** „Audorina“ und „Daránzia“ Huld, neue Brachyuren-Gattungen aus Ungarn. Math.-natw. Ber. Ungarn, Leipzig, 17, (1899), 1901, (328-336, mit 1 Taf.). [2631]. 91

Neuere Beiträge zur tertiären Decapodenfauna Ungarns. Math.-natw. Ber. Ungarn, Leipzig, 18, (1900), 1903, (98-120, mit 2 Taf.). [2631]. 92

**Loomis, F. B.** The dwarf fauna of the pyrite layer at the horizon of the Tully limestone in Western New York. Albany Univ., N.Y., Bull. St. Mus., No. 69, 1903, (892-920, with 5 pls.). [0227 gg 2031 2231 2631]. 93

**Ložko, Jaroslav.** Die Morphologie der Exkretionsorgane der Krustaceen. (Böhmisch) Prag, Sitzber. Ges. Wiss., 1903, No. 26, (29, 1 Taf.). [2607]. 94

**Man, J. G. de.** On *Potamon* (*Potamonautes*) *latidactylum*, a new freshwater crab from Upper Guinea. London, Proc. Zool. Soc., 1903, 1, (41-47, pl. IX). [2627 fd 2631]. 95

**Marchand, Ernest.** Description de deux arthropodes nouveaux provenant du Soudan français. Nantes, Bul. soc. sci. nat., (sér. 2), 2, (2<sup>e</sup> semest.), 1902, (331-343, av. 1 pl.). [2627 fc 2631 4827 fc 4831]. 96

**Marshall, W. S.** *Entocythere cambaria* (n. gen. et. n. sp.), a parasitic Ostracod [with bibliography]. Madison, Trans. Wis. Acad. Sci., 14, (1902), 1903, (117-144, with pl.). [2631]. 96A

**Mayer, P[aul].** Die *Caprellidae*. Résultats des explorations zool., botan.,

océanogr., géol., entreprises aux Ind. Néerl. or. 1899-1900, à bord du Siboga, sous le commandement de G. F. Tydeman, publiés par Max Weber. Livr. 12, Monogr. 34, Leide (E. J. Brill), (160, mit 10 l'af.). 33 cm. [2627 c 2631].

97

**Masi raki**, Stanislas. Sur les rapports des mu cles et de la cuticule chez les Crustacés. (Polonais) Kraków, Bull. Intern. Acad., 1903, (520-531, av. 1 pl.). [2607].

98

**Meek**, Alexander. The migrations of crabs [*Cancer pagurus*]. Rep. Northumb. Sea Fish. Comm., 1903, (33-35). [2619 2631].

99

——— Pit fish. A strange habitat for *Gammarus duebeni*. Rep. Northumb. Sea Fish. Comm., 1903, (51-53). [2619 2631].

100

**Monticelli**, F. S. e **Lo Bianco**, S. Sullo sviluppo dei Peneidi del Golfo di Napoli. Napoli, Boll. Soc. Nat., 15, (1901), 1902, (159). [2615 2631]

101

——— Sulla probabile larva di *Aristeus antennatus*. Mon. zool. ital., Firenze, 13, 1902, (Supplemento), (30-31). [2615 2631].

102

**Müller**, G. W[ilhelm]. Ostracoden. (Hamburgische Elb - Untersuchung.) Hamburg, Jahrb. wiss. Anst., 19, (1901), Beih. 2, 1903, (163-167). [2627 de 2631].

103

**Norman**, A. M. Notes on the natural history of East Finmark. Including "Notes on some Copepoda from the Arctic Seas collected in 1890 by the Rev. Canon A. M. Norman, F.R.S. By Thomas Scott." Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (1-32, pls. I-IV). [2627 db 2631].

104

——— New generic names for some Entomostraca and Cirripedia. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (367-369). [0070 2631].

105

——— British Land Isopoda—Supplement. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (369-372). [2627 de 2631].

106

——— Copepoda Calanoida, chiefly abyssal, from the Faroe Channel and other parts of the North Atlantic. London, J. Linn. Soc. Zool., 29, 1903, (133-141). [2627 la 2631].

107

**Nusbaum**, Józef. [Nouvelles recherches sur l'embryologie des Isopodes (*Cymothoa*)]. (Polonais) Kosmos, Lwów, 28, 1903, (154-177, av. pl.). [2615 2631].

108

**Ohlin**, Axel. Ueber eine neue bathypelagisch lebende Phyllocaride. (Vorläuf. Mitt.). Zool. Anz., Leipzig, 27, 1903, (59-61). [2631 2619].

109

**Osborn**, Henry Lealie. *Bunodera cornuta* sp. nov.: a new parasite from the crayfish and certain fishes of Lake Chautauqua, N.Y. [with bibliography]. Wood's Holl, Mass., Mar. Biol. Lab. Bull., 5, 1903, (63-73, with fig. in text). [1219 1227 yg 1231 2631 5431].

110

**Parker**, G[eorge] H[oward]. The reaction of copepods to various stimuli and the bearing of this on daily depth-migrations. [With bibliography.] Washington, D.C., Bull. U. S. Fish. Com., 21, (1901), 1902, (103-123). [2619 2631].

111

**Paulmier**, F[rederick] C. The edible crab. [*Callinectes hastatus*]. A preliminary study of its life history and economic relationships. Albany Univ., N.Y., Rep. St. Mus., 55, (1901), 1903, (r. 129-r. 136). [2619 2603 2631].

112

**Pearcey**, F. G. Notes on the marine deposits of the Firth of Forth, and their relation to its animal life. Glasgow, Trans. Nat. Hist. Soc., 6, 1903, (217-251, with map). [0427 de 0827 de 2227 de 2627 de 5427 de 1827 de].

113

**Petch**, T. The marine fauna of the Humber District and the Holderness Coast. Hull, Trans. Sci. F. Nat. Cl., 3, 1903, (27-41). [1027 de 2227 de 2627 de 0827 de 1827 de].

114

**Piovaneli**, S. Two new Bdelloida commensal in the branchial cavities of *Telphusa fluviatilis* Link. London, J. Quek. Microsc. Cl., 8, 1903, (521-522). [1619 1631 2619].

115

**Pocock**, R. I., **Walker**, A. O. and **Scott**, Andrew. Crustacea, Malacostraca. In "The Natural History of Sokotra and Abd-el-Kuri . . ." edited by Henry O. Forbes. Liverpool, Special Bull. Mus., 1903. I. The Decapoda of Sokotra, by R. I. Pocock, *ib.*, (212-213, 4 figs. in text). II. Decapod and sessile-eyed Crustaceans from Abd-el-Kuri, [Brachyura by] R. I. Pocock, [Macrura

and Edriophthalma by] A. O. Walker, and Andrew Scott, *ib.*, (216-232, pls. XIVa and XIVb). [With notes by H. O. Forbes.] [Quoted hereafter as Nat. Hist. Sokotra.] [2627 ff 2631]. 116

**Richardson**, Harriet. Isopods collected at the Hawaiian Islands by U. S. Fish Commission steamer Albatross. Washington, D.C., Bull. U. S. Fish Com., **1903**, (47-53). [2627 nd 2631]. 117

**Richters**, Ferd. *Lernaeonema encrasi-coli* Baird, ein Parasit der Sprotte. Prometheus, Berlin, **14**, 1903, (267-268). [2631]. 118

**Ridewood**, W. G. On *Obesiella lyonsiellae*, a new genus of Copepod Crustacean. London, J. Linn. Soc. Zool., **28**, 1903, (463-465); [abstract], London, J. R. Microsc. Soc., **1903**, (497). [2619 2631]. 119

**Sainte-Claire Deville**, J. Exploration entomologique des grottes des Alpes-Maritimes. Ann. Soc. ent., Paris, **71**, 1902, [1903], (695-709, av. fig.). [2431 2427 df 2631 3031 3431 3631 3831 4831]. 120

**Sars**, G[eorg] O[ssian]. Fresh-water entomostraca from China and Sumatra. Arch. Math. Naturv., Kristiania, **25**, 1903, (44, with 4 pls.). [2627 eb eg 2631]. 121

— An account of the Crustacea of Norway, with short descriptions and figures of all the species. Vol. 5, Parts 1 and 2. Bergen, 1903, (1-28, 16 pls.). 4to. [2631 2627 da]. 122

— On the Crustacean Fauna of Central Asia. Part II, Cladocera. St. Petersburg, Ann. Mus. Zool. Ac. Sc., **8**, 1903, (157-194, pls. I-VIII); Part III, Copepoda and Ostracoda. *ib.*, (195-232, pls. IX-XVI); Appendix. Local Fauna of Central Asia. *ib.*, (233-264). [2627 ea eb 2631]. 123

**Sayce**, O. A. The Phyllopoda of Australia, including descriptions of some new genera and species. Melbourne, Proc. R. Soc. Vict., (N. Ser.), **15**, 1903, (224-261, with pls.). [2619 2627 ic 2631]. 124

**Schnee**, Landbewohnende Krebse der Südsee. Natur u. Haus, Dresden, **11**, 1903, (212-216). [2619]. 125

**Schuster**, E. H. J. Variation in *Eupagurus prideauxi* (Heller). Bio-

metrika, Cambridge, **2**, 1903, (191-210, with 1 fig.). [2623 0223 2631]. 126

**Scott**, Andrew. On the spawning of the common lobster. Liverpool, Proc. biol. Soc., **17**, 1903, (106-113). [2619]. 127

— v. Thompson, I. C.

— v. Walker, A. O.

**Scott**, Thomas. Notes on some Copepoda from the Faroe Channel. London, J. Linn. Soc. Zool., **29**, 1903, (1-11, pls. I-III); [abstract], London, J. R. Microsc. Soc., **1903**, (612). [2627 la 2631]. 128

— Some observations on British freshwater harpacticids. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (185-196). [2627 de 2631]. 129

— Some observations on the distribution of the smaller Crustacea. Edinburgh, Trans. Nat. Soc., **5**, 1903, (23-26). [2619]. 130

— On some new and rare Crustacea collected at various times in connection with the investigations of the Fishery Board for Scotland. Glasgow, Rep. Fish. Board, **21**, pt. 3, 1903, (109-135, pls. II-IV). [2627 de 2631]. 131

— Some further observations on the food of fishes, with a note on the food observed in the stomach of a common porpoise. Glasgow, Rep. Fish. Board, **21**, pt. 3, 1903, (218-227, 2 text-figs.). [0060 2603]. 132

**Scourfield**, D. J. Synopsis of the known species of British freshwater Entomostraca. Part I. Cladocera. London, J. Quek. Microsc. Cl., **8**, 1903, (431-454, pl. XXIV); [abstract], London, J. R. Microsc. Soc., **1903**, (497); **1904**, (63). Part II. Copepoda. *ib.*, (531-544). [2627 de 2631]. 133

**Seurat**, L. G. Extrait d'une lettre adressée à M. E. L. Bouvier [Mœurs des Crustacés]. Bul. Muséum, Paris, **1903**, (222-223). [2619 2627 nh]. 134

**Sharpe**, Richard W. Report on the freshwater Ostracoda of the United States National Museum, including a revision of the sub-families and genera of the family *Cyprididae*, [with bibliography]. Washington, D.C., Smithsonian Inst., Nation. Mus. Proc., **26**, 1903, (969-1001, with 5 pls.). [2627 gf 2631]. 135

**Smallwood, Mabel E.** The beach flea: *Talorchestia longicornis*. Brooklyn, N.Y., Inst. Arts Sci. Cold Spring Harbour Monog., No. 1, 1903, (27, with 3 pls.). 25 cm. [2607 2619 2631]. 136

**Spencer, W. K.** The hypostomic eyes of Trilobites. Geol. Mag., London, [4], 10, 1903, (489-492, 3 text figs.). [2607 2831 2807]. 137

**Sprague, B.** *Cyclops rubellus*. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (139-140). [2627 de 2631]. 138

— On the occurrence of *Simoecephalus serrulatus* in Scotland. Ann. Scot. Nat. Hist., Edinburgh, 1903, (250). [2627 de]. 139

**Stebbing, Thomas R. R.** Amphipoda from Costa Rica [*Talorchestia fritzi* n. sp., and *Hyalella faxoni* n. sp.] Washington, D.C., Smithsonian Inst., Nation. Mus. Proc., 26, 1903, (925-931, with 2 pls.). [2627 hb 2631]. 140

**Stecka, Stanislaw.** Contributions à l'anatomie du cœur chez l'écrevisse. (Polonais) Kosmos, Lwów, 28, 1903, (21-43, 1 pl.). [2607 2631]. 141

**Steele, Mary.** The cray fish [*Cambarus*] of Missouri [with bibliography]. Cincinnati, Ohio, Univ. Cincin. Bull., No. 10, 1902, (54, with pl.). 23.5 cm. [2627 gi 2631]. 142

**Stempell, W[alter].** Beiträge zur Kenntnis der Gattung *Polycaryum*. Arch. Protistenkunde, Jena, 2, 1903, (349-363, mit 1 Taf.). [0431 2631]. 143

**Steuer, Adolf.** *Mytilicola intestinalis* n. gen. n. sp. Wien, Arb. Zool. Inst. Univ., 15, 1903, (1-46, mit 5 Taf.). [2603 2631]. 144

**Szilády, Zoltán von.** Die Crustaceen des Retezát. Math.-natw. Ber. Ungarn, Leipzig, 18, (1900), 1903, (71-97). [2627 de]. 145

**Terasaki, Tomekichi.** Descriptions of Japanese crabs. (Japanese) Dobuts. Z., Tokyo, 15, 1903, (12-17, 44-47, 177-186, 234-241, 356-359, 431-440, with figs.). [2627 ee 2631]. 146

**Thienemann, A.** Statocysten bei *Anthura gracilis* Leach. Zool. Anz., Leipzig, 26, 1903, (406-410); [abstract], London, J. R. Microsc. Soc., 1903, (610). [2607 2631]. 147

**Thompson, I. C.** Report on the Copepoda obtained by Mr. George Murray, F.R.S., during the cruise of the "Oceana" in 1898. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (1-36, pls. I-VII). [2627 l 2631]. 148

— On the plankton of the Indian Ocean. London, Rep. Brit. Ass., 1902, 1903, (663-664). [2619 0419]. 149

— and **Scott, Andrew.** Report on the Copepoda collected by Prof. Herdman at Ceylon in 1902, in "Report to the Government of Ceylon on the Pearl Oyster Fisheries of the Gulf of Manaar by W. A. Herdman, D.Sc., F.R.S. With supplementary reports upon the Marine Biology of Ceylon by other naturalists." Part I. London (Royal Society), 1903, (227-307, 20 pls., 1 text-fig.). Quoted hereafter as "Rep. Ceylon Pearl Fisheries." [2619 2631]. 150

**Thompson, Millett T.** A rare Thalassinid [*Naushonia crangonoides*] and its larva [with bibliography]. Boston, Mass., Proc. Soc. Nat. Hist., 31, 1903, (1-21, with 3 pls.). [2615 2631]. 151

— The metamorphoses of the hermit crab [*Eupagurus*, with bibliography]. Boston, Mass., Proc. Soc. Nat. Hist., 31, 1903, (147-209, with 7 pls.). [2615 2631]. 152

— A new Isopod [*Stegophryxus hyptius* n. gen. et. sp.] parasitic on the hermit crab [*Pagurus longicarpus*]. Washington, D.C., Bull. U. S. Fish Com., 21, (1901), (53-56, with pl.). [2619 2631]. 153

**Thomson, G. M.** On the New Zealand Phyllobranchiate Crustacea - Macrura. London, Trans. Linn. Soc. Zool., 8, 1903, (433-453, pls. XXVII-XXIX). [2627 ik 2631]. 154

**Tièche, M.** Ein Petrefakten-Fund vom Belpberg [Schweiz.]. [Lepididen]. Bern, Mitt. Natf. Ges., 1903, (XII). [2627 di 2631]. 155

**Todd, R. A.** Notes on the invertebrate fauna and fish-food of the bays between the Start and Exmouth. Plymouth, J. Mar. Biol. Ass., 6, 1903, (541-561). [5003 5027 de 2219 2227 de 2603 1827 de 1027 de 1019 0827 de 0819 0227 de 0060]. 156

**Ulrich, Carl Jost.** A contribution to the subterranean fauna of Texas. [1 n. gen. described by Eigenmann and Ulrich.] [Arthropoda, with nn. spp. in Crustacea, Arachnida and Aptera.] Contributions from the Zoological Laboratory of the Indiana University No. 34 in Lincoln, Nebr. Trans. Amer. Microsc. Soc., **23**, 1901, [1902]; (83-100, with pl.). [0219 2427 gi 2631 3031 3631]. 157

**Vallentin, R.** Observations on the plankton of Looe Pool. Truro, J. R. Inst. Cornwall, **15**, 1903, (328-344). [2619 1619 0219]. 158

**Walker, A. O.** Amphipoda of the Southern Cross Antarctic expedition. London, J. Linn. Soc. Zool., **29**, 1903, (38-62). [2631]. 159

——— v. Pocock, R. I.

**Warren, Ernest.** On the anatomy and development of *Diatomum cirrigerum* v. Baer. [Parasitic in *Astacus*.] Q. J. Microsc. Sci., London, (N. Ser.), **47**, 1903, (273-301, pls. XXIV-XXVI). [2619 2631]. 160

——— A preliminary attempt to ascertain the relationship between the size of the cell and the size of body in *Daphnia magna* Straus. Biometrika, Cambridge, **2**, 1903, (255-259, with 1 fig.). [2607 0207 2631]. 161

**Weller, Stuart.** The Stokes collection of Antarctic fossils, Mollusca and Crustacea. Chicago, Ill., J. Geol. Univ. Chic., **11**, 1903, (413-419, with pl.). [2203 2603]. 162

**Whitelegge, T.** Crustacea. Notes on the Zoology of Paanopa or Ocean Island and Nauru or Pleasant Island. Sydney, N.S.W., Rec. Austr. Mus., **5**, 1903, (8-12). [2627 ib]. 163

**Williamson, H. C.** On the larval and early young stages and rate of growth of the shore crab *Carcinus maenas*. Glasgow, Rep. Fish. Board, **21**, pt. 3, 1903, (136-179, pls. VII-XIII). [2615 2631]. 164

**Wilson, Edmund B.** Notes on the reversal of asymmetry in the regeneration of the chelae in *Alpheus heterochelis*. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **4**, 1903, (197-210). [0211 2611 2631]. 165

**Witten, E. P.** On the structural changes accompanying the ecdysis of the crab *Cancer pagurus*. Rep. Northumb. Sea Fish. Comm., **1903**, (42-48, 1 pl., 1 text-fig.). [2615 2631]. 166

**Wolf, Eugen.** Dauereier und Ruhezustände bei Kopepoden. Zool. Anz., Leipzig, **27**, 1903, (98-108). [2615 2619 2631]. 167

**Wolfenden, R. Norris.** On the Copepod sub-family *Ætidiinae*, with a proposed revision of the classification. London, Rep. Brit. Ass., **1902**, 1903, (263-267). [2631]. 168

**Woltereck, [Richard].** Bemerkungen zu den Amphipoda Hyperidiidae der deutschen Tiefsee-Expedition. I. *Thaumatoopsidae*. Zool. Anz., Leipzig, **26**, 1903, (447-459, 504, mit 1 Taf.). [2631 2607]. 169

**Woodward, Henry.** On some fossil prawns from the Osborne Beds of the Isle of Wight. Geol. Mag., London, [4], **10**, 1903, (97-99, pl. V.). [2631 2627 de]. 170

**Wüst, Ewald.** Ein pleistocäner Valraten-Mergel mit Brackwasser-Ostrakoden bei Memleben an der Unstrut. Centralbl. Min., Stuttgart, **1903**, (586-590). [2627 de 2631]. 171

**Yerkes, Robert M. and Huggins, Gurry E.** Habit formation in the crawfish *Cambarus affinis*. Harvard Psychological studies, **1**, Psych. Rev. Mongr. Suppl., New York, N.Y., **4**, 1903, (565-577). [2619 2631]. 172

**Zacharias, Otto.** Ueber die jahreszeitliche Variation von *Hyalodaphnia kahlbergensis* Schoedl. Plön, Forsch.-Ber. biol. Stat., **10**, 1903, (293-295). [2631 2623]. 173

**Zernov, S. A.** Ueber das Zooplankton des Aral-Sees, auf Grund der von L. S. Berg im Jahre 1900 gesammelten Materialien. (Russ.) Tashkent, Izv. Turk. Otd. Russ. Geogr. Obsč., **3**, Liefg. III, 1903, (1-38). [0227 0427 1627 ea 1631 2627 2631]. 174

**Zimmer, Carl.** Die Cumaceen des Museums für Naturkunde in Berlin. Zool. Jahrb., Jena, Abt. f. Syst., **18**, 1903, (665-694). [2631]. 175



2603 COMPREHENSIVE AND  
GENERAL WORKS.

## GENERAL.

**Borradaile, L. A.** Marine Crustaceans. IV. Some remarks on the classification of the crabs. V. The crabs of the Catometope families. VI. The sand crabs (Oxystomata). VII. The barnacles (Cirripedia). IX. The sponge-crabs (Dromiacea). X. The spider-crabs (Oxyrhynca). XI. On the classification and genealogy of the reptant Decapods. In: Gardiner, the Fauna and Geography of the Maldive and Laccadive Archipelagoes, 1, pt. 4, (424-443, pl. XXII, and text-figs. 110-119); *Ib.*, 2, pt. 1, 574-578, pl. XXXIII; *Ib.*, pt. 2, (681-698, pls. XLVII-XLVIII, text-figs. 122-126).

**Farren, G. P.** Record of the Copepoda taken on the mackerel fishing grounds off Cleggan, Co. Galway, in 1901. Report on the Sea and Inland Fisheries of Ireland for the year 1901 [1903]. Part II, Appendix, No. VII, (105-120).

**Scott, Thomas.** Some further observations on the food of fishes, with a note on the food observed in the stomach of a common porpoise. Glasgow, Rep. Fish. Board, 21, pt. 3, 1903, (218-227, 2 text-figs.).

**Steuer, Adolf.** *Mytilicola intestinalis* n. gen. n. sp. Wien, Arb. Zool. Inst. Univ., 25, 1903, (1-46, mit 5 Taf.).

**Todd, R. A.** Notes on the invertebrate fauna and fish-food of the bays between the Start and Exmouth. Plymouth, J. Mar. Biol. Ass., 6, 1903, (541-561).

**Weller, S.** The Stokes collection of Antarctic fossils. Chicago, Ill. J. Geol. Univ. Chic., 11, 1903, (413-419, with pl.).

## ECONOMICS.

**Cunningham, J. T.** Report . . . on the experiments in oyster and lobster culture in 1902, with summary of the work from 1897. Falmouth, Rep. Cornwall Polyt. Soc., 70, 1903, (27-39).

**Paulmier, F[r]ederick C.** The edible crab. [*Callinectes hastatus*.] A preliminary study of its life history and economic relationships. Albany Univ., N.Y., Rep. St. Mus., 55, (1901), 1903, (r. 129-r. 138).

## 2607 STRUCTURE.

## GENERAL.

**Benham, W. B.** On some remains of a gigantic fossil Cirripede from the Tertiary Rocks of New Zealand. Geol. Mag., London, [4], 10, 1903, (110-119, pls. IX-X).

**Beradt, W.** Die Anatomie von *Cryptophialus striatus* n. sp. Berlin, SitzBer. Ges. natf. Freunde, 1903, (436-444).

——— Zur Biologie und Anatomie von *Alcippe lampas* Hancock. Zs. wiss. Zool., Leipzig, 74, 1903, (396-457, mit 4 Taf.).

**Hansen, H. J.** The deep-sea Isopod *Anuropus branchiatus* Bedd. and some remarks on *Bathynomus giganteus* A. M. Edw. London, J. Linn. Soc. Zool., 29, 1903, (12-25, pl. IV); [abstract], London, J. R. Microsc. Soc., 1903, (611-612).

**Kloke, Eduard.** *Bosminopsis* (*B. ishikawai* n. sp. and *B. deitersi* Rich.) in Japan. (German) Annot. Zool. Jap., Tokyo, 4, 1903, (123-135, with pl.).

**Smallwood, Mabel E.** The beach flea: *Talorchestia longicornis*. Brooklyn, N.Y., Inst. Arts Sci. Cold Spring Harbor Monog., No. 1, 1903, (27, with 3 pls.). 25 cm.

**Warren, Ernest.** A preliminary attempt to ascertain the relationship between the size of the cell and the size of body in *Daphnia magna* Straus. Biometrika, Cambridge, 2, 1903, (255-259, with 1 fig.).

**Woltereck, [Richard].** Bemerkungen zu den Amphipoda Hyperideae der deutschen Tiefsee-Expedition. I. *Thaumatopeidae*. Zool. Anz., Leipzig, 26, 1903, (447-459, 504, mit 1 Taf.).

## NERVOUS SYSTEM AND ORGANS OF SENSE.

**Cunnington, William A.** Studien an einer Daphnide, *Simocephalus sima*. Beiträge zur Kenntnis des Centralnervensystems und der feineren Anatomie der Daphniden. Jenaische Zs. Natw., 37, 1903, (447-520, mit 3 Taf.).

**Doflein, F[r]anz.** Die Augen der Tiefseekrabben. Hab.-Schr. München. Leipzig (G. Thieme), 1903, (24). 23 cm.

**Kotte, Erich.** Beiträge zur Kenntniss der Hautsinnesorgane und des peripheren Nervensystems der Tiefsee-Decapoden. Zool. Jahrb., Jena, Abt. f. Anat., **17**, 1903, (619-658, mit 5 Taf.).

**Spencer, W. K.** The hypostomic eyes of Trilobites. [*Branchipus*.] Geol. Mag., London, [4], **10**, 1903, (489-492, 3 text figs.).

**Thienemann, A.** Statocysten bei *Anthurus gracilis* Leach. Zool. Anz., Leipzig, **28**, 1903, (406-410); [abstract], London, J. R. Microsc. Soc., **1903**, (610).

#### MYOLOGY.

**Masiaraki, Stanislas.** Sur les rapports des muscles et de la cuticule chez les Crustacés. (Polonais) Kraków, Bull. Intern. Acad., **1903**, (520-531, av. 1 pl.).

#### CIRCULATORY AND RESPIRATORY ORGANS.

**Stecka, Stanisława.** Contributions à l'anatomie du cœur chez l'écrevisse. Kosmos, Lwów, **28**, 1903, (21-43, av. 1 pl.).

#### EXCRETORY ORGANS.

**Loiko, J.** Die Morphologie der Exkretionsorgane der Krustazeen. Prag, SitzBer. Ges. Wiss., **1903**, Nr. 26, (29, 1 Taf.).

#### SPECIAL EXTERNAL CHARACTERS.

**Hansen, H. J.** On the Crustaceans of the genera *Petalidium* and *Sergestes* from the "Challenger," with an account of luminous organs in *Sergestes challengerii* n. sp. London, Proc. Zool. Soc., **1903**, 1, (52-79, pls. XI, XII).

### 2611 PHYSIOLOGY.

#### FUNCTIONS OF SPECIAL STRUCTURES.

**Ouénot, L.** L'organe phagocytaire des crustacés décapodes. Paris, C.-R. Acad. sci., **137**, 1903, (619-621).

**Hofmann, Wilh.** Das Gleichgewichts-Sinnesorgan (Statocyste) bei den Krebsen. Naturfreund, Witten, **2**, 1903, (11-13).

**Launoy, L.** Les phénomènes de pyrénolyse dans les cellules de la glande hépato-pancréatique de l'*Eupagurus bernardus*. Paris, C.-R. Acad. sci., **135**, 1903, (109-112).

#### RESPIRATION.

**Bohn, Georges.** Des mécanismes respiratoires chez les crustacés décapodes: essai de physiologie évolutive, éthologique et phylogénique. Bul. sci. France, Belgique, Paris, **36**, 1902, (178-551, av. fig.).

#### ENVIRONMENTAL EFFECTS.

**Keeble, F. and Gamble, F. W.** The colour physiology of the higher Crustaceans. London, Phil. Trans. R. Soc., **196a**, 1903, (295-388).

#### REGENERATION.

**Wilson, Edmund B.** Notes on the reversal of asymmetry in the regeneration of the chelae in *Alpheus heterochelis*. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **4**, 1903, (197-210).

### 2615 DEVELOPMENT.

#### GENERAL.

**Cunningham, J. T.** Report . . . on the experiments in oyster and lobster culture in 1902, with summary of the work from 1897. Falmouth, Rep. R. Cornwall Polyt. Soc., **70**, 1903, (27-39).

**Monticelli, F. S. e Lo Bianco, S.** Sullo sviluppo dei Peneidi del Golfo di Napoli. Napoli, Boll. Soc. Nat., **15**, (1901), 1902, (159).

#### OVUM.

**Herrick, Francis H[obart].** The reproductive period in the lobster. Washington, D.C., Bull. U. S. Fish. Com., **21**, (1901), 1902, (161-166, with text fig.).

**Wolf, Eugen.** Dauereier und Ruhezustände bei Kopepoden. Zool. Anz., Leipzig, **27**, 1903, (98-108).

## SPERMATOGENESIS.

**Koltzoff, Nicolas.** Untersuchungen über Spermien und Spermiogenese bei Decapoden. Vorläufige Mitteilung. Anat. Anz., Jena, **24**, 1903, (83-95).

———. Sur la réorganisation des corpuscules centraux. Paris, C.-R. soc. biol., **55**, 1903, (135-137).

**Labbé, Alphonse.** Sur la spermatogenèse des crustacés décapodes. Paris, C.-R. Acad. sci., **137**, 1903, (272-274).

**maenas.** Glasgow, Rep. Fish. Board, **21**, pt. 3, 1903, (136-179, pls. VII-XVI).

**Appelløf, A[nders].** Researches on the development of the lobster, 1902. (Norw.) Bergen, Norsk Fisket., **22**, 1903, (114-132).

**Thompson, Millett T.** A rare Thalassinid [*Naushonia crangonoides*] and its larva [with bibliography]. Boston, Mass., Proc. Soc. Nat. Hist., **31**, 1903, (1-21, with 3 pls.).

## EMBRYOLOGY, ORGANOGENY, HISTOGENY.

**Kališevskij, M. Th.** Zur Frage über die frühen Entwicklungsstadien der Crevette *Palaemon (Leander) rectirostris* Zadd. (Russ.) Odessa, Ann. Soc. Nat., **25**, Liefg 2, (134-138).

**Nusbaum, Josef.** Nouvelles recherches sur l'embryogenie des Isopodes (*Cymothoa*). (Polonais) Kosmos, Lwów, **23**, 1903, (157-177, av. 2 pls.).

## METAMORPHOSIS AND LARVAL FORMS.

**Fowler, G. Herbert.** Contributions to our knowledge of the Plankton of the Faeroe Channel.—No. VIII [Notes on Copepoda by R. Norris Wolfenden]. London, Proc. Zool. Soc., **1903**, 1, (117-133, 5 text-figs.).

**Gurney, Robert.** The metamorphosis of the Decapod Crustaceans *Aegeon (Crangon) fasciatus* Risso, and *Aegeon (Crangon) trispinosus* (Hailstone). *l.c.* **2**, (24-30, pls. V-VI).

———. The larvae of certain British *Crangonidae*. Plymouth, J. Mar. Biol. Ass., (N. Ser.), **6**, 1903, (595-597).

**Monticelli, F. S. e Lo Bianco, S.** Sulla probabile larva di *Aristeus antennatus*. Mon. zool. ital., Firenze, **13**, 1902, (Supplemento), (20-31).

**Thompson, Millett T.** The metamorphoses of the hermit crab. [*Eupagurus*, with bibliography.] Boston, Mass., Proc. Soc. Nat. Hist., **31**, 1903, (147-209, with 7 pls.). Separate 24.3 cm.

**Williamson, Henry Charles.** On the larval and early young stages and rate of growth of the shore crab *Carcinus*

## CHANGES DURING LIFE.

**Dollfus, A.** Sur la diminution progressive de la pigmentation oculaire chez *Circolana neglecta*. Feuille jeunes natural., Paris, (ser. 4), **33**, 1903, (65).

**Witten, E. P.** On the structural changes accompanying the ecdysis of the crab *Cancer pagurus*. Rep. Northumb. Sea Fish. Comm., **1903**, (42-48, 1 pl., 1 text-fig.).

## 2619 ETHOLOGY.

## GENERAL.

**Bohn, Georges.** Des mécanismes respiratoires chez les crustacés décapodes: essai de physiologie évolutive, éthologique et phylogénique. Bul. sci. France-Belgique, Paris, **36**, 1902, (178-551, av. fig.).

**Fowler, G. Herbert.** Contributions to our knowledge of the Plankton of the Faeroe Channel. No. VIII. [Notes on Copepoda by R. Norris Wolfenden.] London, Proc. Zool. Soc., **1903**, 1, (117-133, 5 text figs.).

**Gurney, R.** Notes on *Scapholeberis aurita* (S. Fischer), a Cladoceran new to Britain. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (630-633, with 2 text-figs.).

**Haase, J. P.** Records of some Victorian Entomostraca. Vict. Nat., Melbourne, **19**, 1903, (148-149).

**Kirkaldy, G. W.** Note on the phototropism of *Daphnia*. J. Quek. Microsc. Cl., London, (Ser. 2), **8**, 1903, (465-466); [abstract], London, J. R. Microsc. Soc., **1903**, (497).

**Linko, A.** Die Cladoceren des Ilmen-Sees und benachbarter Gegenden. (Russ.) Nikolsk Fischzucht., St. Petersburg, 1903, No. 7, (50-61, deutsches Res., 61-66).

**Paulmier, F[rederick] C.** The edible crab. [*Callinectes hastatus*]. A preliminary study of its life history and economic relationships. Albany Univ., N.Y., Rep. St. Mus., 55, 1903, (r. 129-r. 136).

**Ridewood, W. G.** On *Obesiella lyonsiellae*, a new genus of Copepod Crustacean. London, J. Linn. Soc. Zool., 28, 1903, (463-465); [abstract], London, J. R. Microsc., 1903, (497).

**Sayce, O. A.** The Phyllopoda of Australia, including descriptions of some new genera and species. Melbourne, Proc. R. Soc. Vict., 15, (N. Ser.), 1903, (224-59, with pls. XXVII-XXXVI).

**Smallwood, Mabel E.** The beach flea: *Talorchestia longicornis*. Brooklyn, N.Y., Inst. Arts. Sci. Cold Spring Harbor Monog., No. 1, 1903, (27, with 3 pls.). 25 cm.

**Thompson, I. C. and Scott, Andrew.** Report on the Copepoda collected by Prof. Herdman at Ceylon in 1902, in Rep. Ceylon Pearl Fisheries. Part I. London (Royal Society), 1903, (227-307, 20 pls., 1 text-fig.).

#### HABITS.

**Fabre-Domergue et Biéatrix, E.** Le mécanisme de l'émission des larves chez la femelle du homard européen. Paris, C.-R. Acad. sci., 136, 1903, (1408-1409); [abstract], London, J. R. Microsc. Soc., 1903, (723).

**Harris, J. Arthur.** The habits of *Cambarus*. Amer. Nat., Boston, Mass., 37, 1903, (601-608); [abstract], London, J. R. Microsc. Soc., 1903, (723).

**Hartog, Marcus.** Notes on the method of feeding of Phyllopoda and Cladocera. The American monthly microscopical Journal, Washington, D.C., 23, 1902, (131-132).

**Kane, W. F. de V.** A rare blind Amphipod from Lough Mask. [With note by A. M. Norman.] Irish Nat., Dublin, 12, 1903, (273-274).

[**Kishinouye, Kamakichi.**] . . . Sand balls made by crabs. (Japanese) Dobuts. Z., Tokyo, 15, 1903, (372-373).

**Schnee.** Landbewohnende Krebse der Südsee. Natur u. Haus, Dresden, 11, 1903, (212-216).

**Seurat, L. G.** Extrait d'une lettre adressée à M. E. L. Bouvier [Mœurs des crustacés]. Bul. Muséum, Paris, 1903, (222-223).

#### MIGRATION.

**Meek, Alexander.** The migrations of crabs. [*Cancer pagurus*]. Rep. Northumb. Sea Fish. Comm., 1903, (33-35).

**Parker, G[eorge] H[oward].** The reactions of Copepods to various stimuli and the bearing of this on daily depth-migrations, [With bibliography.] Washington, D.C., Bull. U. S. Fish. Com., 21, (1901), 1902, (103-123).

#### HIBERNATION.

**Wolf, Eugen.** Dauereier und Ruhezustände bei Kopepoden. Zool. Anz., Leipzig, 27, 1903, (98-108).

#### REPRODUCTION.

**Scott, Andrew.** On the spawning of the common lobster. Liverpool, Proc. biol. Soc., 17, 1903, (106-113).

**Herriek, Francis H[obart].** The reproductive period in the lobster. Washington, D.C., Bull. U. S. Fish. Com., 21, (1901), 1902, (161-166, with text-fig.).

**Holmes, S. J.** Sex recognition among Amphipods. Wood's Holl, Mass., Mar. Biol. Lab. Bull., 5, 1903, (288-292).

#### HABITAT.

**Doffein, F[rantz].** Die Augen der Tiefseekrabben. Hab.-Schr. München. Leipzig (G. Thieme), 1903, (24). 23 cm.

**Korotnev, A.** Bericht an das Ministerium der Landwirtschaft u. d. Staatsdomänen üb. die Thätigkeit der zoologischen Expedition auf dem Baikalsee im Sommer d. J. 1902. (Russ.) Moskva, 1902, (27, mit 9 Fig. u. 1 Karte). 26 cm.

**Kotte, Erich.** Beiträge zur Kenntniss des Hautsinnesorgane und peripheren Nervensystems der Tiefsee-Decapoden. Zool. Jahrb., Jena, Abt. f. Anat., **17**, 1903, (619-658, mit 5 Taf.).

**Linko, A.** Die Cladoceren des Ilmen Sees und benachbarter Gegenden. (Russ.) Nikolsk Fischzucht., St. Petersburg, **1903**, No. 7, (50-61, deutsches Res., 61-66).

**Meek, A.** Pit fish. A strange habitat for *Gammarus duebeni*. Rep. Northumb. Sea Fish Comm., **1903**, (51-53).

**Ohlin, Axel.** Ueber eine neue bathypelagisch lebende Phyllocaride. (Vorläuf. Mitt.) Zool. Anz., Leipzig, **27**, 1903, (59-61).

**Thompson, Isaac C.** On the plankton of the Indian Ocean. London, Rep. Brit. Ass., **1902**, 1903, (643-644).

**Vallentin, Rupert.** Observations on the plankton of Looe Pool. Truro, T. R. Inst. Cornwall, **15**, 1903, (325-344).

#### INSTINCT AND PSYCHOLOGY.

**Holmes, S. J.** Death feigning in terrestrial amphipods. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **4**, 1903, (191-196); [abstract], London, J. R. Microsc. Soc., **1903**, (723).

**Yerkes, Robert M.** and **Huggins, Gurry E.** Habit formation in the craw fish *Cambarus affinis*. Harvard Psychological studies 1, Psych. Rev. Monogr. Suppl., New York, N.Y., **4**, 1903, (565-577).

#### PARASITISM.

**Augener, Hermann.** Beiträge zur Kenntniss der Gephyreen nach Untersuchung der im Göttinger zoologischen Museum befindlichen Sipunculiden und Echiuriden. Arch. Natg., Berlin, **69**, Bd. 1, 1903, (297-371, mit 5 Taf.).

**Bassett-Smith, P. W.** On new parasitic Copepoda from Zanzibar and East Africa collected by Cyril Crossland, B.A., B.Sc. London, Proc. Zool. Soc., **1903**, 1, (104-109, with 2 text figs.).

**Bonnier, Jules.** Sur deux types nouveaux d'Epicarides, parasites d'un Cumacé et d'un Schizopode. Paris, C.-R. Acad. sci., **136**, 1903, (102-103).

**Coker, Robert E.** Notes on a species of barnacle (*Dichelaspia*) parasitic on the gills of edible crabs. [With bibliography.] Washington, D.C., Bull. U. S. Fish Com., **21**, (1901), 1902, (399-412, with text-fig.).

**Gill, Theo[dore]** [Nicholas]. The hosts of argulids and their nomenclature. [Criticism of C. B. Wilson's "North American parasitic copepods of the family Argulidae"]. Science, New York, N.Y., (N. Ser.), **17**, 1903, (33).

**Piovanelli, S.** Two new Bdelloida commensal in the branchial cavities of *Telphusa fluviatilis* Lmk. London, J. Quek. Microsc. Cl., **8**, 1903, (521-522).

**Scott, T.** Some observations on the distribution of the smaller Crustacea. Edinburgh, Trans. Nat. Sci., **5**, 1903, (23-26).

**Thompson, Millett T.** A new Isopod [*Stegophryxus hyptius* n. gen. et sp.] parasitic on the hermit crab [*Pagurus longicarpus*]. Washington, D.C., Bull. U. S. Fish Com., **21**, 1901, (53-56, with pl.).

**Warren, Ernest.** On the anatomy and development of *Distomum cirrigerum*. V. Baer. [Parasitic in *Astacus*]. Q. J. Microsc. Sci., London, (N. Ser.), **47**, 1903, (273-301, pls. XXIV-XXVI).

#### DEFENSIVE PROCESSES.

**Clapp, Geo. H.** Protective coloration in *Cambarus virilis* Hagen. Pittsburgh, Pa., Ann. Carnegie Mus., **1**, 1901, (253).

#### 2623 VARIATION AND AETIOLOGY.

##### GENERAL.

**Byrnes, Esther F.** Heterogeny and variation in some of the Copepoda of Long Island. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **5**, 1903, (152-168, with text-fig.). [Separate. 25.7 cm.]

**Lanchester, W. F.** Marine Crustaceans. VIII. Stomatopoda, with an account of the varieties of *Gonodactylus chiragra*. In: Gardiner, the Fauna and Geography of the Maldives and Laccadive Archipelagoes, **1**, pt. 4, (444-458, pl. XXIII).

**Schuster, E. H. J.** Variation in *Eupagurus prideauxi* (Heller). Biometrika, Cambridge, 2, 1903, (191-210, with 1 fig.).

## SUBSTANTIVE VARIATION.

**Lankester, E. Ray.** On the modification of the eye peduncles in crabs of the genus *Cymonomus*. London, Q. J. Microsc. Sci. (N. Ser.), 47, 1903, (439-463, pls. XXXIII-XXXIV, 12 text-figs.). [Notes by A. M. Norman and W. T. Calman].

**Lepri, G.** Nota preliminare sopra una forma cieca di *Asellus*. Mon. zool. ital., Firenze, 13, 1902, (Supplemento), (37-38).

**Zacharias, Otto.** Ueber die jahreszeitliche Variation von *Hyalodaphnia kahlbergensis* Schoedl. Plön, Forsch.-Ber. biol. Stat., 10, 1903, (293-295).

## MERISTIC VARIATION.

**Duncker, Georg.** Ueber Asymmetrie bei *Gelasimus pugilator* Latr. Biometrika, Cambridge, 3, 1903, (307-320).

## EVOLUTION.

**Bohn, Georges.** Des mécanismes respiratoires chez les crustacés décapodes: essai de physiologie évolutive, éthologique et phylogénique. Bul. sci. France, Belgique, Paris, 36, 1902, (178-551, av. fig.).

## 2627 GEOGRAPHICAL DISTRIBUTION.

**Gruvel, A.** Revision des Cirrhipèdes appartenant à la collection du Muséum d'Histoire naturelle (suite). Nouv. Arch. Muséum, Paris, (sér. 4), 5, 1903, (95-170, av. pl.).

## c THE OCEAN AS A WHOLE.

**Mayer, P.** Die *Caprellidae* der Siboga-Expedition [Systematik und Faunistik der Caprelliden der ganzen Welt]. Résultats des explorations zool., botan., océanogr., géol. . . à bord du Siboga

. . . publiés par Max Weber. Livr. 12, Monogr. 34. Leide (E. J. Brill), 1903, (160, mit 10 Taf.). 33 cm.

## d EUROPE.

## da SCANDINAVIA.

**Sars, G[eorg] O[ssian]** . . . the Crustacea of Norway, with short descriptions and figures of all the species. Vol. 5, Parts 1 and 2. Bergen, 1903, (1-28, with 16 pl.). 4to.

## db RUSSIA IN EUROPE.

**Linko, A.** Die Cladoceren des Ilmen-Sees und benachbarter Gegenden. (Russ.) Nikolsk Fischzucht, St. Petersburg, 1903, No. 7, (50-61, deutsches Res., 61-66).

———. Die Cladoceren des Weissen Sees und einiger angrenzender Seen. (Russ.) l.c. (66-78, deutsches Res. 78).

**Norman, A. M.** Notes on the natural history of East Finmark. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (1-32).

## dc GERMAN EMPIRE.

**Douwe, C. van.** Zur Kenntniss der Süßwasser-Harpacticiden Deutschlands. Zool. Jahrb., Jena, Abt. f. Syst., 18, 1903, (383-400, mit 1 Taf.).

**Müller, G. W[ilhelm].** Ostracoden. (Hamburgische Elb - Untersuchung.) Hamburg, Jahrb. wiss. Anst., 19, (1901), Beih. 2, 1903, (163-167).

## de BRITISH ISLANDS.

**Brady, G. S.** Report on dredging and other marine research off the north-east coast of England in 1902. Newcastle, Trans. Nat. Hist. Soc., 14, 1903, (87-101).

**Gurney, R.** Notes on *Scapholeberis aurita* (S. Fischer), a Cladoceran new to Britain. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (630-633, with 2 text-figs.).

———. *Monstrilla helgolandica* Claus at Plymouth. Plymouth, J. Mar. Biol. Ass., (N. Ser.), 6, 1903, (621).

**Herdman, W. A.** [Crustaceans] in: The new biological station at Port Erin, being the 16th annual report of the Liverpool Marine Biology Committee. Liverpool, Trans. Biol. Soc., **17**, 1903, (15-67).

**Hey, W. C.** Shore-collecting near Scarborough and Filey. Naturalist, London, **1903**, (344-348).

**Kane, W. F. de Vismes.** A contribution to the knowledge of Irish freshwater entomostraca. Cladocera. Irish Nat., Dublin, **12**, 1903, (210-218, and note on 273).

— A rare blind Amphipod from Lough Mask. [With note by A. M. Norman.] *l.c.* (273-274).

**Lamplugh, G. W.** Ostracoda in The Geology of the Isle of Man. Mem. Geol. Surv. U. K., London, **1903**, (257); Cirripedia, *ib.*, (473).

**Norman, A. M.** British Land Isopoda. Supplement. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (369-372).

**Pearcey, F. G.** Notes on the marine deposits of the Firth of Forth and their relations to its animal life. Glasgow, Trans. Nat. Hist. Soc., **6**, 1903, (217-251, with map).

**Petch, T.** The Marine Fauna of the Humber District and the Holderness Coast. Hull, Trans. Sci. F. Nat. Cl., **3**, 1903, (27-41).

— Marine zoology at Filey. Naturalist, London, **1903**, (351).

**Scott, Thomas.** Some observations on British freshwater Harpacticids. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (185-196).

— On some new and rare crustacea collected at various times in connection with the investigations of the Fishery Board for Scotland. Glasgow, Rep. Fish. Board, **21**, pt. 3, 1903, (109-135, pls. II-VI).

**Scourfield, D. J.** Synopsis of the known species of British freshwater entomostraca. Part II. Copepoda. London, J. Quek. Microsc. Cl., **8**, 1903, (531-544).

**Sprague, B.** *Cyclops rubellus*. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (139-140).

— On the occurrence of *Simocephalus serrulatus* in Scotland.

Ann. Scot. Nat. Hist., Edinburgh, **1903**, (250).

**Woodward, Henry.** On some fossil prawns from the Osborne Beds of the Isle of Wight. Geol. Mag., London, [4], **10**, 1903, (97-99, pl. V).

**Wüst, Ewald.** Ein pleistocäner Valvaten-Mergel mit Brackwasser-Ostrakoden bei Memleben an der Unstrut. Centralbl. Min., Stuttgart, **1903**, (580-590).

#### dk AUSTRIA-HUNGARY.

**Szilády, Zoltán von.** Die Crustaceen des Retezát. Math.-natw. Ber. Ungarn, Leipzig, **18**, (1900), 1903, (71-97).

#### di SWITZERLAND.

**Graeter, Alb.** Copepoden der Umgebung Basels. Rev. Suisse Zool., Genève, **11**, 1903, (419-541, 2 pls.).

**Tièche, M.** Ein Petrefakten-Fund vom Belpberg (Schweiz) (Lepadiden). Bern, Mitt. Natf. Ges., **1903**, (XII).

#### dl BALKAN PENINSULA.

**Douwé, Carl van.** Beitrag zur Kenntnis der Copepodenfauna Bulgariens. Zool. Anz., Leipzig, **26**, 1903, (550-553).

#### e ASIA.

##### ea ASIA RUSSIA.

**Chevreaux, Ed.** Amphipodes recueillis par M. P. Labbé dans les parages du lac Baikal (1902-1903). Bul. Muséum, Paris, **1903**, (223-224).

**Gariaev, V. P.** Bericht über eine Reise zur Untersuchung der Evertabratenfauna des Baikal-Sees im Sommer 1900 u. 1901. (Russ.) St. Petersburg, Trd. Troick.-Kíacht. Otd. Russ. Geogr. Obsč., **2**, 1902, [1903], (27-48, mit 1 Karte).

**Sars, G. O.** On the Crustacean Fauna of Central Asia. Part II. Cladocera. St. Petersburg, Ann. Mus. zool. Ac. Sc., **8**, 1903, (157-194, pls. I-VIII); Part III. Copepoda and Ostracoda. *l.c.* (195-232, pls. IX-XVI); Appendix. Local Fauna of Central Asia. *l.c.* (233-264).

**Zernov, S. A.** Ueber das Zooplankton des Aral-Sees, auf Grund der von L. S. Berg im Jahre 1900, gesammelten Materialien. (Russ.) Taschent, Izv. Turk. Otd. Russ. Geogr. Obsč., 3, Liefg III, 1903, (1-38).

**eb CHINA AND DEPENDENCIES.**

**Sars, G. O.** On the Crustacean Fauna of Central Asia. Part II. Cladocera. St. Petersburg, Ann. Mus. zool. Ac. Sc., 8, 1903, (157-194, pls. I-VIII); Part III. Copepoda and Ostracoda. l.c. (195-232, pls. IX-XVI). Appendix. Local Fauna of Central Asia. l.c. (233-264).

——— Fresh-water entomostraca from China and Sumatra. Arch. Math. Naturv., Kristiania, 25, 1903, (44, with 4 pls.).

**ec JAPANESE ISLANDS.**

**Kloocke, Eduard.** *Bosminopsis* (*B. ishikawai* and *B. deitersi* Rich.) in Japan. (German) Annot. Zool. Jap., Tokyo, 4, 1903, (123-135, with pl.).

**Terasaki, Tomekichi.** [Brachyurous decapoda of Japan]. (Japanese) Dobuts. Z., Tokyo, 15, 1903, (12-17, 44-47, 177-186, 234-241, 356-359, 431-440, with figs.).

**eg MALAY PENINSULA AND ARCHIPELAGO.**

**Lanchester, W. F.** On the Crustacea collected during the "Skeat Expedition" to the Malay Peninsula. London, Proc. Zool. Soc., 1902, 2, [1903], (363-381, pls. XXXIV-XXXV). [Terrestrial Isopoda descr. by Gustav Budde-Lund].

**Sars, G[eorge] O[ssian].** Fresh-water entomostraca from China and Sumatra. Arch. Math. Naturv., Kristiania, 25, 1903, (44, with 4 pls.).

**f AFRICA.**

**fc SAHARA AND THE FRENCH SUDAN.**

**Marchand, Ernest.** Description de deux Arthropodes nouveaux provenant du Soudan français. Nantes, Bul. soc. sci. nat., (sér. 2), 2, (2<sup>e</sup> semest.), 1902, (331-343, av. 1 pl.).

(N 2-9053)

**fd WEST AFRICA.**

**Man, J. G. de** On *Potamon* (*Potamonautes*) *latidactylum*, a new fresh-water crab from Upper Guinea. London, Proc. Zool. Soc., 1903, 1, (41-47, pl. IX).

**ff EAST AFRICA.**

**Pocock, R. I., Walker, A. O. and Scott, Andrew.** Crustacea; Malacostraca. In "Nat. Hist. Sokotra." . . . 1903, I. The Decapoda of Sokotra, by R. I. Pocock, ib., (212-213, 4 figs. in text). II. Decapod and sessile-eyed Crustaceans from Abd-el-Kuri, [Brachyura by] R. I. Pocock, [Macrura and Edriophthalma by] A. O. Walker and Andrew Scott, (216-232, pls. XIVa and XIVb). [With notes by H. O. Forbes.]

**g NORTH AMERICA.**

**Holmes, S. J.** Synopses of the North American Invertebrates. 18. The Amphipoda [of the Atlantic Coast]. Amer. Nat., Boston, Mass., 37, 1903, (267-292).

**Jones, T. Rupert.** On some *Isochilinae* from Canada and elsewhere in North America. Geol. Mag., London, [4], 10, 1903, (300-304, with 3 text-figs.).

**gf UNITED STATES.**

**Sharpe, Richard W.** Report on the fresh-water Ostracoda of the United States National Museum including a revision of the subfamilies and genera of the family *Cyprididae*, [with bibliography]. Washington, D.C., Smithsonian Inst., Nation. Mus. Proc., 26, 1903, (969-1001, with 5 pls.). Separate 24.3 cm.

**gi WESTERN UNITED STATES.**

**Steele, Mary.** The crayfish [*Cambarus*] of Missouri [with bibliography]. Cincinnati, Ohio, Univ. Cincin. Bull., No. 10, 1902, (54, with pl.). 23.5 cm.

**h CENTRAL AND SOUTH AMERICA.**

**hb CENTRAL AMERICA.**

**Stebbing, Thomas R. R.** Amphipoda from Costa Rica. [*Talorchestia frutis*]



n. sp. and *Hyalella faxoni* n. sp.]. Washington, D.C., Smithsonian Inst., Nation. Mus. Proc., **26**, 1903, (925-931, with 2 pls.). Separate. 24.2 cm.

#### hc WEST INDIAN ISLANDS.

**Hay**, William Perry. On a small collection of crustaceans from the island of Cuba. Washington, D.C., Smithsonian Inst., Nation. Mus. Proc., **26**, 1903, (429-435). Separate. 24.3 cm.

#### i AUSTRALASIA.

##### ib BISMARCK ARCHIPELAGO.

**Whitelegge**, T. [Crustacea of Gilbert Group]. Sydney, N.S.W., Rec. Austr. Mus., **5**, 1903, (8-12).

##### ic AUSTRALIA.

**Sayce**, O. A. The Phyllopoda of Australia, including descriptions of some new genera and species. Melbourne, Proc. R. Soc. Vict., **15**, (N. Ser.), 1903, (224-259, with pls.)

##### if VICTORIA.

**Barnard**, E. G. A. Excursion to Launching Place [Victoria]. [*Talitrus sylvaticus*]. Vict. Nat., Melbourne, **19**, 1903, (147).

**Haase**, J. F. Records of some Victorian Entomostraca. *l.c.* (148-150, with 1 pl.).

##### ik NEW ZEALAND.

**Thomson**, George M. On the New Zealand Phyllobranchiate Crustacea-Macrura. London, Trans. Linn. Soc. Zool., **8**, 1903, (433-453, pls. XXVII-XXIX).

#### k ARCTIC.

##### ka ARCTIC OCEAN.

**Norman**, A. M. "Notes on some Copepoda collected in the Arctic Seas in 1890 by the Rev. Canon A. M. Norman, F.R.S., by Thomas Scott, F.L.S.," in Notes on the Natural History of East Finmark. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (4-32, pls. VIII-IX).

#### l ATLANTIC.

**Hansen**, H. J. On a new species of *Sergestes* obtained by Mr. George Murray during the cruise of the "Oceana" in 1898. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (479-481, with 7 figs. in text).

**Thompson**, Isaac C. Report on the Copepoda obtained by Mr. George Murray, F.R.S., during the cruise of the "Oceana" in 1898. *l.c.* **12**, 1903, (1-36, pls. I-VII).

##### la NORTH ATLANTIC OCEAN.

**Norman**, A. M. Copepoda Calanoida, chiefly abyssal, from the Faroe Channel and other parts of the North Atlantic. London, J. Linn. Soc. Zool., **29**, 1903, (133-141).

**Scott**, Thomas. Notes on some Copepoda from the Faroe Channel. London, J. Linn. Soc. Zool., **29**, 1903, (1-11, pls. I-III); [abstract], London, J. R. Microsc. Soc., **1903**, (612).

##### m INDIAN OCEAN.

##### ma OCEAN AND ISLANDS N. OF EQUATOR.

**Lanchester**, W. F. Marine Crustaceans. VIII. Stomatopoda, with an account of the varieties of *Gonodactylus chiragra*. In: Gardiner, the Fauna and Geography of the Maldives and Laccadive Archipelagoes, **1**, Pt. 4, (444-458, pl. XXIII).

#### n PACIFIC.

**Hansen**, H. J. On the Crustaceans of the genera *Petalidium* and *Sergestes* from the "Challenger," with an account of luminous organs in *Sergestes challengerii* n. sp. London, Proc. Zool. Soc., **1903**, **1**, (52-79, pls. XI, XII).

##### nd ISLANDS N. OF EQUATOR AND E. OF 180°.

**Richardson**, Harriet. Isopods collected at the Hawaiian Islands by the U. S. Fish Commission steamer "Albatross." Washington, D.C., Bull. U. S. Fish Com., **1903**, (47-54). Separate. 27.6 cm.

## nh SOCIETY ISLANDS.

**Seurat, L.-G.** Extrait d'une lettre adressée à M. E. L. Bouvier [Mœurs des crustacés]. *Bul. Muséum, Paris*, 1903, (222-223).

## o ANTARCTIC.

**Giesbrecht, W.** Zoologie. Copepoden. In *Expédition antarctique belge. Résultats du voyage du S.Y. "Belgica" en 1897-99. Rapports scientifiques.* Anvers (Imprimerie J. E. Buschmann), 1902, (49, av. XIII pls. hors texte). 25 fr.

## 2631 TAXONOMY AND SYSTEMATIC.

## GENERAL.

**Brady, G. S.** Report of dredging and other marine research off the north-east coast of England, in 1901. *Newcastle, Trans. Nat. Hist. Soc.*, 14, 1903, (87-101).

**Fritel, P. H.** Crustacés fossiles. *Naturaliste, Paris*, (sér. 2), 24, 1902, (269-271, av. fig.).

**Hay, W. P.** On a small collection of crustaceans from the island of Cuba. *Washington, D.C., Smithsonian Inst., Nation. Mus. Proc.*, 26, 1903, (429-435). Separate. 24.3 cm.

**Lanchester, W. F.** On the crustacea collected during the "Skeat Expedition" to the Malay Peninsula. *London, Proc. Zool. Soc.*, 1902, 2, [1903], (363-381, pls. XXXIV-XXXV.) [Terrestrial Isopoda descr. by Gustav. Budde-Lund.]

**Loomis, F. B.** The dwarf fauna of the pyrite layer at the horizon of the Tully limestone in western New York. [nn. spp. of Brachiopoda, Mollusca and Crustacea]. *Albany, Univ. N.Y., Bull. St. Mus.*, No. 69, 1903, (892-920, with 5 pls.).

**Norman, A. M.** Notes on the natural history of East Finmark. [Crustacea]. *Ann. Mag. Nat. Hist., London*, (Ser. 7), 11, 1903, (1-4, pls. I. IV.).

— New generic names for some Entomostraca and Cirripedia. *l.c.* (367-369).

(N 2-9053)

**Sars, G. O.** On the Crustacean Fauna of Central Asia, pt. III. *St. Petersburg, Ann. Mus. zool. Ac. Sc.*, 8, 1903, (195-232, pls. IX-XVI).

— Crustacea of Norway . . . Vol. 5, Parts I and 2. *Bergen* 1903, (1-28, w. 16 pl.). 4to.

**Scott, T.** On some new and rare Crustacea collected at various times in connection with the investigations of the Fishery Board for Scotland. *Glasgow, Rep. Fish. Board*, 21, pt. 3, 1903, (109-135, pls. II-VI).

## ENTOMOSTRACA.

## GENERAL.

**Haase, J. F.** Records of some Victorian Entomostraca. *Vict. Nat.*, Melbourne, 19, 1903, (148-150, with 1 pl.).

**Hartog, M.** Notes on the method of feeding of Phyllopods and Cladocera. *The American monthly microscopical Journal, Washington, D.C.*, 23, 1902, (131-132).

**Kane, W. F. de V.** A contribution to the knowledge of Irish fresh-water Entomostraca. *Cladocera. Irish Nat.*, Dublin, 12, 1903, (210-218, and Note on 273).

**Sars, G. O.** Fresh-water entomostraca from China and Sumatra. *Arch. Math. Naturv., Kristiania*, 25, 1903, (44, with 4 pls.).

**Scourfield, D. T.** Synopsis of the known species of British fresh-water Entomostraca. Part I. *Cladocera.* *London, J. Quek. Microsc. Cl.*, 8, 1903, (431-454, pl. XXIV.). Part II. *Copepoda.* *ib.*, (531-544); [abstract], *London, J. R. Microsc. Soc.*, 1903, (497).

**Zernov, S. A.** Ueber das Zooplankton des Aral-Sees . . . (Russ.) *Tashkent, Izv. Turk. Otd. Russ. Geogr. Obsč.*, 3, Liefg. III, 1903, (1-38).

## CIRRIPEIDIA.

## GENERAL.

**Borradaile, L. A.** Marine Crustaceans. VII. The Barnacles (Cirripedia). In *Gardiner, Fauna Maldiva and Laccad.* *Arch.*, 1, pt. 4, 1903, (440-443).

**Gruvel, A.** Cirrhipèdes operculés nouveaux ou peu connus de la collection du Muséum. *Bul. Muséum, Paris, 1903*, (23-25).

— Revision des Cirrhipèdes appartenant à la collection du Muséum d'Histoire naturelle. *Nouv. Arch. Muséum, Paris, (sér. 4), 4, 1902*, (215-312, av. fig. et pl.); *5, 1903*, (95-170, av. pl.).

**Tièche, M.** Ein Petrefakten-Fund vom Belpberg (Schweiz). (*Lepadiden*). *Bern, Mitt. Natf. Ges., 1903*, (XII).

#### SPECIAL.

*Alcippe lampas*, Biologie und Anatomie. **Berndt, W.** *Zs. wiss. Zool. Leipzig, 74, 1903*, (396-457, mit 4 Taf.).

*Balanus* nn. spp. **Gruvel, A.** *Bull. Muséum, Paris, 1903*, (23-25); *Arch. Mus., Paris, (sér. 4), 5, 1903*, (133-143).

— *aeneus* n. sp., *B. amaryllis: dissimilis* n. subsp. Malay Peninsula. **Lanchester, W. F.** *London, Proc. Zool. Soc., 1902, 2, [1903]*, (369-370, pl. XXXIV).

— *maldicensis* n. sp. **Borradale, L. A.** *Fauna Mald. and Laccad. Arch., 1, (442)*.

— *violaceus* n. sp. **Gruvel, A.** *Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903*, (297).

*Chelonobia manati* n. sp. **Gruvel, A.** *Bul. Muséum, Paris, 1903*, (24); *Nouv. Arch. Mus., Paris, (sér. 4), 5, 1903*, (116, pl. II, figs. 14, 17, 18, pl. IV, figs. 15, 16).

*Cryptophialus striatus* n. sp. **Berndt, W.** *Berlin, Sitzber. Ges. natf. Freunde, 1903*, (436-444).

*Dichelaepis* nn. spp. **Gruvel, A.** *Nouv. Arch. Muséum, Paris, (sér. 4), 4, 1902*, (215-312, av. fig. et pl.).

— nn. spp. Malay Peninsula. **Lanchester, W. F.** *London, Proc. Zool. Soc., 1902, 2, [1903]*, (373-375, pl. XXXV).

— *mülleri* n. sp. North Carolina. **Coker, R. E.** *Washington, D.C., Bull. U. S. Fish Com., 21, (1901), 1902*, (399-412, with text-fig.).

*Lepos hilli* n. sp. var. *californiensis* n. var. **Gruvel, A.** *Nouv.*

*Arch. Muséum, Paris, (sér. 4), 4, 1902*, (266, pl. XIII, figs. 1, 22).

*Platylepas ophiophilus* n. sp. Malay Peninsula. **Lanchester, W. F.** *London, Proc. Zool. Soc., 1902, 2, [1903]*, (371).

*Pyrgoma madreporae* n. sp. **Borradale, L. A.** *Fauna Mald. Laccad. Arch., 1, (443)*.

*Scalpellum* nn. spp. **Gruvel, A.** *Nouv. Arch. Muséum, Paris, (sér. 4), 4, 1902*, (229).

— *aucklandicum*†, Tertiaries of New Zealand. **Benham, W. B.** *Geol. Mag., London, [4], 10, 1903*, (110-119, pls. IX-X).

*Trypetesa* n. nom = *Alcippe*, type *T. lampas* (A. Hancock). **Norman, A. M.** *Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903*, (389).

#### OSTRACODA.

##### GENERAL.

**Brady, G. S.** List of the Ostracoda collected by Mr. George Murray, F.R.S., during the Cruise of the "Oceana" in 1898. *Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903*, (337-339).

**Müller, G. W.** Ostracoden. (Hamburgische Elb-Untersuchung.) *Hamburg, Jahrb. wiss. Anst., 19, (1901), Beih. 2, 1902*, (163-167).

**Sharpe, R. W.** Report on the fresh water Ostracoda of the United States National Museum, including a revision of the sub-families and genera of the family *Cyprididae*. [With bibliography.] *Washington, D.C., Smithsonian Inst. Nation. Mus. Proc., 26, 1903*, (969-1001, with 5 pls.). Separate 24.3 cm.

**Wüst, E.** Ein pleistocäner Valvaten-Mergel mit Brackwasser-Ostrakoden bei Memleben an der Unstrut. *Centr. Min., Stuttgart, 1903*, (586-590).

##### SPECIAL.

*Chlamydotheca mexicana* n. sp. **Sharpe, R. W.** *Washington, D.C., Smithsonian Inst., Nat. Mus. Proc., 26, 1903*, (976).

*Cypridopsella* nn. spp. Siberia. **Sars, G. O.** *St. Petersburg, Ann. Mus. zool. Ac. Sc., 9, 1903*, (225).

*Cypridopsis* nn. spp. Sars, G. O. Arch. Math. Naturv., Kristiania, **25**, 1903, (44).

*Cypris* nn. sp. Sars, G. O. l.c. (22, 23, 32, pl. II, figs. 3-4b, pl. IV, figs. 2, 2a-b).

— nn. spp. Siberia et Mongolia. Sars, G. O. St. Petersburg, Ann. Mus. zool. Ac. Sc., **8**, 1903, (222, 223, pl. XVI, figs. 2-3b).

*Doleroocypris sinensis* n. sp. Sars, G. O. Arch. Math. Naturv., Kristiania, **25**, 1903, (37, pl. IV, figs. 7-7b).

*Entocythere* n. gen., *E. cambaria* n. sp., parasitism. Marshall, Wm. S. Madison, Trans. Wis. Acad. Sci., **14**, (1902), 1903, (117-144, with pl.).

*Entomis procephala*† n. sp. Loomis, F. B. Albany Univ., N.Y., Bull. St. Mus., No. **69**, 1903, (892-920).

*Eucandona stummeri* n. sp. Daday, T. Math. Term. Ért., Budapest, **21**, 1903, (351-354).

*Hemicypris* n. gen., *H. megalops*, *H. ovata* nn. spp. Sars, G. O. Arch. Math. Naturv., Kristiania, **25**, 1903, (25, pl. III, figs. 1-1 f).

*Ilyocypris* nn. spp. Sars, G. O. l.c. (38, 39, pl. IV, figs. 8-9a).

*Isochilina* spp. from Canada and elsewhere in North America. Jones, T. R. Geol. Mag., London, [4], **10**, 1903, (300-304).

— *gregaria* (Whitfield) var. *utrichiana*† n. var. Canada. Jones, T. R. l.c. (300-302, with 3 text-figs.).

*Leptocypris* n. gen., *L. papyracea* n. sp. Sars, G. O. Arch. Math. Naturv., Kristiania, **25**, 1903, (29, pl. III, figs. 4-4 c).

*Notodromas oculata* n. sp. Sars, G. O. l.c. (30, pl. IV, figs. 1-1 c).

*Physocypris kraepelini* n. sp. Müller, T. W. Hamburg, Jahrb. wiss. Anst., **19**, (1901), Beitr. 2, 1903, (163-167).

*Potamocypris almyesi* n. sp. Daday, T. Math. Term. Ért., Budapest, **21**, 1903, (354-355).

*Spirocypris* n. gen., *S. passaica* n. sp. Sharpe, R. W. Washington, D.C., Smithsonian Inst., Nation. Mus. Proc., **26**, 1903, (982, pl. LXVI, figs. 1-3).

## COPEPODA.

## GENERAL.

Bassett-Smith, P. W. [Addenda to systematic enumeration of species of parasitic Copepoda found on fish.] London, Proc. Zool. Soc., **1903**, 1, (104-109).

Byrnes, E. F. Heterogeny and variation in some of the Copepoda of Long Island. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **5**, 1903, (152-168, with text-fig.). [Separate]. 2.57 cm.

Douwé, C. van. Beitrag zur Kenntnis der Copepodenfauna Bulgariens. Zool. Anz., Leipzig, **26**, 1903, (550-553).

Farren, G. P. Record of the Copepoda taken on the mackerel fishing grounds off Cleggan, Co. Galway, in 1901. Report on the Sea and Inland Fisheries of Ireland for the year 1901 [1903]. Part II, Appendix, No. VII, (105-120).

Fowler, G. Herbert. Contributions to our knowledge of the Plankton of the Faeroe Channel. No. VIII. [Notes on Copepoda by R. Norris Wolfenden]. London, Proc. Zool. Soc., **1903**, 1, (117-183, 3 text-figs.).

Graeter, A. Copepoden der Umgebung Basels. Rev. Suisse Zool., Genève, **11**, 1903, (419-541, 2 pls.).

Norman, A. M. Copepoda Calanoida, chiefly abyssal, from the Faeroe Channel and other parts of the North Atlantic. London, J. Linn. Soc. Zool., **29**, 1903, (133-141).

— Notes on some copepoda from the Arctic Seas collected in 1900 by the Rev. Canon A. M. Norman, F.R.S. by Thomas Scott, F.L.S. In: Notes on the Natural History of East Finmark. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (4-32, pls. I-IV).

Parker, G. H. The reactions of copepods to various stimuli and the bearing of this on daily depth-migrations. [With bibliography.] Washington, D.C., Bull. U. S. Fish. Com., **21**, (1901), 1902, (103-123).

Scott, T. Some observations on British freshwater Harpacticids. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (185-196).

**Scott, T.** [*Harpactidae*, old and new species.] London, J. Linn. Soc. Zool., **29**, 1903, (1-11).

**Thompson, I. C.** Report on the Copepoda obtained by Mr. George Murray, F.R.S., during the cruise of the "Oceana" in 1898. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (1-36, pls. I-VII).

— and **Scott, A.** Report on the Copepoda collected by Prof. Herdman, at Ceylon in 1902, in "Rep. Ceylon Pearl Fisheries." Part I. London (Royal Society), 1903, (227-307, 20 pls., 1 text-fig.).

**Wolf, E.** Dauereier und Ruhezustände bei Kopepoden. Zool. Anz., Leipzig, **27**, 1903, (98-108).

**Wolfenden, R. N.** On the Copepod sub-family *Aetidiinae*, with a proposed revision of the classification. London, Rep. Brit. Ass., **1902**, 1903, (262-267).

#### SPECIAL.

*Aetideus tenuirostris* n. sp. **Wolfenden, R. N.** London, Rep. Brit. Ass., **1902**, (266).

*Ameira* nn. spp. **Scott, T.** Glasgow, Rep. Fish. Board, **21**, 3, 1903, (114-115).

— nn. spp. **Thompson, I. C.** and **Scott, A.** In: Herdman's Rep. Ceylon Pearl Fisheries, Part I, London, (Royal Society), 1903, (264).

*Ancorabolutus* n. gen., *A. mirabilis* n. sp. **Norman, A. M.** Varanger Fiord and Clyde. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (2-4).

*Asterocheres* nn. spp. **Thompson, I. C.** and **Scott, A.** In: Herdman's Rep. Ceylon Pearl Fisheries, Part I, London, (Royal Society), 1903, (287-288).

*Asteropontius* n. gen., *A. typicus*, *A. attenuatus* nn. spp. **Thompson, I. C.** and **Scott, A.** l.c. (288-299).

*Attheyella arctica* (Lilljeborg) from E. Finmark, description. **Norman, A. M.** Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (14-16).

*Boeckella orientalis* n. sp. Mongolia orient. **Sars, G. O.** St. Petersburg, Ann. Mus. zool. Ac. Sc., **8**, 1903, (196).

*Centropages* nn. spp. **Thompson, I. C.** and **Scott, A.** In: Herdman's Rep. Ceylon Pearl Fisheries. Part I. London, (Royal Society), 1903, (247).

*Ceylonia* n. gen., *C. aculeata* n. sp. **Thompson, I. C.** and **Scott, A.** l.c. (265).

*Chondracanthus cynoglotidis* n. sp. **Thompson, I. C.** and **Scott, A.** l.c. (294).

*Chondrocarpus* n. gen., *C. reticulosus* n. sp. Zanzibar. **Bassett-Smith, P. W.** London, Proc. Zool. Soc., **1903**, **1**, (104-105, with text-fig.).

*Clausidium* **Kossmann = Hersilia** Philippi. **Norman, A. M.** Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (368).

*Cletodes armata* n. sp. **Scott, T.** London, J. Linn. Soc. Zool., **29**, 1903, (6-8).

— *neglecta* n. sp. **Scott, T.** Glasgow, Rep. Fish. Board, **21**, 3, 1903, (120-121).

— *varians* n. sp., *C. tenuipes* var. E. Finmark. **Scott, T.** in **Norman, A. M.** Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (18-20).

*Cletoptontius* n. gen., *C. serratus* n. sp. **Thompson, I. C.** and **Scott, A.** In: Herdman's Rep. Ceylon Pearl Fisheries, Part I, London, (Royal Society), 1903, (292).

*Collocheres giesbrechti* n. sp. **Thompson, I. C.** and **Scott, A.** l.c. (289).

*Congericola* van Beneden, type *C. pallida*. **Norman, A. M.** Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (369).

*Cyclopina belgicae* n. sp. Antarctic Seas. **Giesbrecht, W.** Résultats du voyage du S.Y. "Belgica" en 1897-99. Anvers (Imprimerie J. E. Buschmann), 1902, (20, pl. 7, figs. 1-15).

— *schneideri* n. sp. East Finmark. **Norman, A. M.** Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (6-7, pl. 1, figs. 1-16).

*Cyclops* nn. spp. **Ulrich, C. J.** Lincoln, Nebr., Trans. Amer. Microsc. Soc., **23**, 1901, [1902], (83-100, with pl.).

— *crassicaudis* **Sars. Douwe, C. van.** Zool. Anz., Leipzig, **26**, 1903, (463-465).

— *rubellus*, in Britain. **Sprague, B.** Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (139-140).

*Dactylophus* nn. spp. **Thompson**, I. C. and **Scott**, A. In: Herdman's Rep. Ceylon Pearl Fisheries, Part I, London, (Royal Society), 1903, (268-272).

*Dactylopus*, old and new species. **Scott**, T. Glasgow, Rep. Fish. Board, 21, 3, 1903, (124-129).

—— *longirostris* Claus var. *finmarchicus* n. var. E. Finmark. **Norman**, A. M. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (21-22).

—— *strömii* (Baird) var. *arcticus* n. var. E. Finmark. **Scott**, T. in **Norman**, A. M. l.c. (23).

—— var. *faroënsis* n. var. **Scott**, T. London, J. Linn. Soc. Zool., 29, 1903, (8-10).

*Dactylopusia* n. nom. = *Dactylopus*, type *D. stroemi* (Baird). **Norman**, A. M. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (368).

*Delavalia minutissima* n. sp. **Scott**, T. Glasgow, Rep. Fish. Board, 21, 3, 1903, (116).

—— *robusta* var. *finmarchica* n. var. East Finmark. **Scott**, T. in **Norman**, A. M. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (13, pl. 1, figs. 14-18).

*Diaptomus* nn. spp. Siberia et Altai. **Sars**, G. O. St. Petersburg, Ann. Mus. zool. Ac. Sc., 8, 1903, (200-214).

*Doropontius* n. gen., *D. denticornis* n. sp. **Thompson**, I. C. and **Scott**, A. In: Herdman's Rep. Ceylon Pearl Fisheries, Part I, London, (Royal Society), 1903, (291).

*Ectinosoma antarcticum* n. sp. Antarctic Seas. **Giesbrecht**, W. Résultats du voyage du S.Y. "Belgica." Anvers (Imprimerie J. E. Buschmann), 1902, (31, pl. XII, figs. 7-17).

—— *finmarchicum* n. sp. East Finmark. **Scott** in **Norman**, A. M. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (9-10, pl. I, figs. 7-13).

*Enhydrosoma* nn. spp. **Scott**, T. Glasgow, Rep. Fish. Board, 21, 3, 1903, (122-123).

*Euchaeta* nn. spp. Antarctic Seas. **Giesbrecht**, W. Résultats du voyage du S.Y. "Belgica." Anvers (Imprimerie J. E. Buschmann), 1902, (21-22 pl. III, figs. 1-16).

*Euchaeta oceanica* n. sp. **Thompson**, I. C. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (19, pl. 2, figs. 1-9).

*Euterpina* n. nom = *Eutерpe*, type *E. gracilis*. **Norman**, A. M. l.c. 11, 1903, (368).

*Gaëtanus krupp* n. sp. Mediterranean. **Giesbrecht** in **Lo Bianco**, S. Mitt. Zool. Stat. Neapel, Berlin, 16, 1903, (109-279).

—— *major* n. sp. Faeroe Channel. **Wolfenden** in **Fowler**, G. H. London, Proc. Zool. Soc., 1903, 1, (125).

—— *pileatus* n. sp. **Farran**, G. P. Report on the Sea and Inland Fisheries of Ireland for the year 1901 [1903]. Part II, Appendix, No. VII, (120).

*Gaidius boreale* n. sp. **Wolfenden**, R. N. London, Rep. Brit. Ass., 1902, (266).

*Halicyclops* n. nom. = *Hemicyclops* Claus, type *Cyclops acquoreus* Fischer. **Norman**, A. M. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (368).

*Harpaeticus furcifer* n. sp. Antarctic Seas. **Giesbrecht**, W. Résultats du voyage du S.Y. "Belgica." Anvers (Imprimerie J. E. Buschmann), 1902, (37, pl. IX, figs. 15-19).

*Hemidiaptomus* n. gen., *H. ignatovi* n. sp. Siberia occ., Altai et Mongolia orient. **Sars**, G. O. St. Petersburg, Ann. Mus. zool. Ac. Sc., 8, 1903, (197).

*Hermanella* nn. spp. **Thompson**, I. C. and **Scott**, A. In: Herdman's Rep. Ceylon Pearl Fisheries, Part I, London, (Royal Society), 1903, (282-283).

—— *finmarchia* n. sp. East Finmark. **Scott**, T. in **Norman**, A. M. Ann. Mag. Nat. Hist., London, Ser. 7, 11, 1903, (28-29, pl. IV, figs. 14-19).

*Hersiliodes* nn. spp. **Thompson**, I. C. and **Scott**, A. In: Herdman's Rep. Ceylon Pearl Fisheries, Part I, London, (Royal Society), 1903, (284).

*Heterorhabdus austrinus* n. sp. Antarctic Seas. **Giesbrecht**, W. Résultats du voyage du S.Y. "Belgica." Anvers (Imprimerie J. E. Buschmann), 1902, (28, pl. VI, figs. 1-9).

*Idya* nn. spp. Antarctic Seas. **Giesbrecht**, W. l.c. (38, pl. XI, figs. 8-13, 1-7).

*Isochaeta longisetosus* n. sp. **Thompson**, I. C. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (26-27, pl. VII, figs. 1-9).

*Labidocera* nn. spp. **Thompson**, I. C. and **Scott**, A. In: Herdman's Rep. Ceylon Pearl Fisheries, Part I, London, (Royal Society), 1903, (251-252).

*Laophonte* spp., *L. gracilis* n. sp. **Scott**, T. Glasgow, Rep. Fish. Board, **21**, 3, 1903, (118-120).

———— *farøensis* n. sp. **Scott**, T. London, J. Linn. Soc. Zool., **29**, 1903, (4-6).

———— *hirsuta* n. sp. **Thompson**, I. C. and **Scott**, A. In: Herdman's Rep. Ceylon Pearl Fisheries, Part I, London, (Royal Society), 1903, (266).

*Laophontella* n. gen., *L. typica* n. sp. **Thompson**, I. C. and **Scott**, A. l.c. (266-267).

*Lepeopsyllus* n. gen., *L. typicus*, *L. ovalis* n. sp. **Thompson**, I. C. and **Scott**, A. l.c. (290-291).

*Lernaeonema encrasicoli* Baird, ein Parasit der Sprotte. **Eichters**, F. Prometheus, Berlin, **14**, 1903, (267-268).

*Lichomolgus* nn. spp. **Thompson**, I. C. and **Scott**, A. In: Herdman's Rep. Ceylon Pearl Fisheries, Part I, London, (Royal Society), 1903, (279-281).

*Lipponobius* n. gen., *L. gephyreicola* n. sp. **Augener**, H. Arch. Natg., Berlin, **69**, Bd 1, 1903, (297-371, mit 5 Taf.).

*Lucicutia magna* n. sp. Faeroe Channel. **Wolfenden** in **Fowler**, G. H. London, Proc. Zool. Soc., **1903**, 1, (124).

*Maraenobiotus affinis* n. sp. **Daday**, J. Math. Term. Ért., Budapest, **21**, 1903, (337-342).

*Medenophthalmus* n. gen., *M. minutus* n. sp. Mediterranean. **Lo Bianco**, S. Mitt. zool. Stat. Neapel, Berlin, **16**, 1903, (109-279).

*Metridia gerlachei* n. sp. Antarctic Seas. **Giesbrecht**, W. Résultats du voyage du S.Y. "Belgica." Anvers (Imprimerie J. E. Buschmann), 1902, (27, pl. V, figs. 6-14).

*Monstrilla conjunctiva* n. sp. Antarctic Seas. **Giesbrecht**, W. l.c. (27, pl. V, figs. 6-14).

*Monstrilla helgolandica* Claus, at Plymouth. **Gurney**, R. Plymouth, J. Mar. Biol. Ass., (N. Ser.), **6**, 1903, (627).

*Moraria schmeilii* n. sp. Süßwasser, Deutschland, **Dauwe**, C. van. Zool. Jahrb., Jena, Abt. f. Syst., **18**, 1903, (383-400, mit 1 Taf.).

*Mytilicola* n. gen., *M. intestinalis* n. sp. **Steuer**, A. Wien. Arb. Zool. Inst. Univ., **15**, 1903, (1-46, mit 5 Taf.).

*Nitocera gracillimana* n. sp. Antarctic Seas. **Giesbrecht**, W. Résultats du voyage du S.Y. "Belgica." Anvers (Imprimerie J. E. Buschmann), 1902, (32, pl. XI, figs. 14-21).

———— *paradoxa* n. sp. **Daday**, J. Math. Term. Ért., Budapest, **21**, 1903, (342-346).

*Obesiella* n. gen., *O. lyonsiellae* n. sp. **Ridewood**, W. G. London, J. Linn. Soc. Zool., **28**, 1903, (463).

*Oithona frigida* n. sp. Antarctic Seas. **Giesbrecht**, W. Résultats du voyage du S.Y. "Belgica." Anvers (Imprimerie J. E. Buschmann), 1902, (29, pl. VI, figs. 10-16).

*Oncaea curvata* n. sp. Antarctic Seas. **Giesbrecht**, W. l.c. (42, pl. XIII, figs. 12-17).

*Paralichomolgus* n. gen., *P. curticaudatus*, *P. longicaudatus* nn. spp. **Thompson**, I. C. and **Scott**, A. In: Herdman's Rep. Ceylon Pearl Fisheries, Part I, London, (Royal Society), 1903, (281-282).

*Paranthessius* n. gen., *P. dubius* n. sp. **Scott**, T. Glasgow, Rep. Fish. Board, **21**, 3, 1903, (130-131).

*Parastenhelia* n. gen., *P. hornelli*, *P. similis* nn. spp. **Thompson**, I. C. and **Scott**, A. In: Herdman's Rep. Ceylon Pearl Fisheries, Part I, London, (Royal Society), 1903, (263-264).

*Peltidium* nn. spp. **Thompson**, I. C. and **Scott**, A. l.c. (273-274).

*Phyllothyreus* n. nom. = *Phyllophora* Milne-Edwards, type *Phyllothyreus cornutus*. **Norman**, A. M. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (368-369).

*Pontella danas* var. *ceylonica* n. var. **Thompson**, I. C. and **Scott**, A. In: Herdman's Rep. Ceylon Pearl Fisheries, Part I, London, (Royal Society), 1903, (252).

*Pontellopsin herdmani* n. sp. **Thompson**, I. C. and **Scott**, A. l.c. (253).

*Porcellidium* nn. spp. **Thompson**, I. C. and **Scott**, A. l.c. (275).

*Pseudactideus* n. gen., *P. multiserrata* n. sp. **Wolfenden**, R. N. London, Rep. Brit. Ass., 1902, (265-266).

*Pseudanthessius* nn. spp. **Thompson**, I. C. and **Scott**, A. In: Herdman's Rep. Ceylon Pearl Fisheries, Part I, London, (Royal Society), 1903, (276-278).

*Pseudocalanus pygmaeus*. Antarctic Seas. **Giesbrecht**, W. Résultats du voyage du S.Y. "Belgica." Anvers (Imprimerie J. E. Buschmann), 1902, (20, pl. II, figs. 1-5).

*Pseudotachidius similis* n. sp. **Scott**, T. London, J. Linn. Soc. Zool., 29, 1903, (3-4, pls. I-III).

*Racovitzanus* n. gen. (Calanidae), *R. antarcticus* n. sp. Antarctic Seas. **Giesbrecht**, W. Résultats du voyage du S.Y. "Belgica." Anvers (Imprimerie J. E. Buschmann), 1902, (26, pls. IV, figs. 8-13, 1-5).

*Rhincalanus grandis* n. sp. Antarctic Seas. **Giesbrecht**, W. l.c. (18, pl. I, figs. 15-18).

*Ridgewayia* n. gen., *R. typica* n. sp. **Thompson**, I. C. and **Scott**, A. In: Herdman's Rep. Ceylon Pearl Fisheries, Part I, London (Royal Society), 1903, (245).

*Scolecithrix chelifer* n. sp. **Thompson**, I. C. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (21-22, pl. V, figs. 1-9).

— *glacialis* n. sp. Antarctic Seas. **Giesbrecht**, W. Résultats du voyage du S.Y. "Belgica." Anvers (Imprimerie J. E. Buschmann), 1902, (25, pl. IV, figs. 1-7).

*Scottocheres stylifer* n. sp. Antarctic Seas. **Giesbrecht**, W. l.c. (39, pl. VII, figs. 16-23).

*Silvestria* n. nom. for *Leptatrachelus mihli*. **Brian**, A. Zool. Anz., Leipzig, 26, 1903, (547).

*Stenhalia* nn. spp. **Thompson**, I. C. and **Scott**, A. In: Herdman's Rep. Ceylon Pearl Fisheries, Part I, London, (Royal Society), 1903, (260-263).

— *hyperborea* n. sp. East Finmark. **Scott**, T. In: **Norman**, A. M.

Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (11-12, pl. II, figs. 9-13).

*Stephopontius* n. gen., *S. typicus* n. sp. **Thompson**, I. C. and **Scott**, A. In: Herdman's Rep. Ceylon Pearl Fisheries, Part I, London, (Royal Society), 1903, (293).

*Stephus longipes* n. sp. Antarctic Seas. **Giesbrecht**, W. Résultats du voyage du S.Y. "Belgica." Anvers (Imprimerie J. E. Buschmann), 1902, (20, pl. II, figs. 6-14).

*Sunaristes* nn. spp. **Thompson**, I. C. and **Scott**, A. In: Herdman's Rep. Ceylon Fisheries, London, (Royal Society), 1903, (256).

*Tegastes* n. nom. = *Amygone* Claus., type *A. satyrus* Claus. **Norman**, A. M. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (368).

— nn. spp. **Thompson**, I. C. and **Scott**, A. In: Herdman's Rep. Ceylon Pearl Fisheries, Part I, London, (Royal Society), 1903, (258-259).

*Tetragoniceps* nn. spp. **Thompson**, I. C. and **Scott**, A. l.c. (267-268).

— *pygmaeus* n. sp. **Scott**, T. Glasgow, Rep. Fish. Board, 21, 3, 1903, (117-118).

*Thalestria clausii*, *T. longimana* Claus., descriptions. **Norman**, A. M. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (24-27).

— *normani* n. sp. East Finmark. **Scott**, T. in **Norman**, A. M. l.c. (25-26, pl. III, figs. 12-18).

*Ventriculina* n. gen., *V. crosslandi* n. sp. Zanzibar. **Bassett-Smith**, W. A. London, Proc. Zool. Soc., 1903, 1, (106-107, with text-fig.).

*Xanthocalanus giesbrechti* n. sp. **Thompson**, I. C. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (22-23, pl. V, figs. 1-9).

## PHYLLOPODA.

### GENERAL.

**Linko**, A. Cladoceren des Thuen-Sees. (Russ.) Nikolak Fischzucht., St. Petersburg, 1903, No. 7, (50-61, deutsches Res., 61-66).

— Cladoceren des Weissen Sees. (Russ.) l.c. (66-78, deutsches Res. 78).



**Sars, G. O.** On the Crustacean Fauna of Central Asia. Pt. II. St. Petersburg, Ann. Mus. zool. Ac. Sc., **8**, 1903, (157-194, pls. I-VIII).

## SPECIAL.

*Alona acuticostata* n. sp. **Sars, G. O.** Arch. Math. Naturv., Kristiania, **25**, 1903, (44).

*Apus australiensis* Spencer and Hall. **Sayce, O. A.** Melbourne, Proc. R. Soc. Vict., **15**, (N. Ser.), 1903, (241-242).

——— *cancriformis*. **Lampert, K.** Natur u. Schule, Leipzig, **4**, 1902, (128-134).

*Artemia proxima* King, and 2 nn. spp. Australia. **Sayce, O. A.** Melbourne, Proc. R. Soc. Vict., **15**, (N. Ser.), 1903, (229-31, with pls. XXVII-XXVIII).

*Bosminella* n. gen., *B. anisitsi* n. sp. **Daday, E. von.** Zool. Anz., Leipzig, **26**, 1903, (594-597).

*Bosminopsis ishikawae* n. sp. and *B. deitersi* Rich. in Japan. (German) **Klocks, E.** Annot. Zool. Jap., Tokyo, **4**, 1903, (123-135, with pl.).

*Branchinella* n. gen., *B. australiensis* Richters, *B. eyrensis* n. sp. Australia. **Sayce, O. A.** Melbourne, Proc. R. Soc. Vict., **15**, (N. Ser.), 1903, (235-240, pls. XXX-XXXI).

*Chirocephalus*, sp. Australia. **Sayce, O. A.** l.c. (240-241).

*Cyclotheria hislopi* Baird. Australia. **Sayce, A. O.** l.c. (256-257, pl. XXXVI).

*Daphnia*, note on phototropism. **Kirkaldy, G. W.** London, J. Quek. Microsc. Cl., (Ser. 2), **8**, 1903, (465-466); [abstract], London, J. R. Microsc. Soc., **1903**, (497).

——— *carinata*. **Hasse, J. F.** Vict. Nat., Melbourne, **19**, 1903, (146).

——— *longispina*, Parasit [*Poly-caryum laevis*] in. **Stappell, W.** Arch. Protistenkunde, Jena, **2**, 1903, (349-363, mit 1 Taf.).

——— *magna* Straus, relationship between size of cell and size of body. **Warren, E.** Biometrika, Cambridge, **2**, 1903, (255-259, with 1 fig.).

——— *triquetra* n. sp. Siberia occ. **Sars, G. O.** St. Petersburg, Ann. Mus. Zool. Ac. Sc., **8**, 1903, (157-194).

*Daphniopsis* n. gen., *D. tibetana* n. sp. **Sars, G. O.** l.c. (157-194).

*Darányia* n. gen., *D. granulata*† n. sp. Ungarn. **Lörentz, E.** Math-natw. Ber. Ungarn, Leipzig, **17**, (1899), 1901, (328-336).

*Dunhevidia neglecta* n. sp. Austria. **Daday, E. von.** Zool. Jahrb., Jena, Abt. f. Syst., **19**, 1903, (37-98).

*Etheria dictyon* Spencer and Hall, *E. elliptica* G. O. Sars, *E. lutraria* Brady, *E. packardii* Brady, *E. sarsi* n. sp. Australia. **Sayce, O. A.** Melbourne, Proc. R. Soc. Vic., **15**, (N. Ser.), 1903, (250-256, pls. XXXIV-XXXVI).

*Eulimnadia dahli* G. O. Sars, *E. ricolensis* Brady, *E. sordida* King, *E. victoriensis* n. sp. Australia. **Sayce, O. A.** l.c. (244-48, pls. XXXII-XXXIV).

*Hyalodaphnia kahlbergensis* Schoedl, jahreszeitliche Variation. **Zacharias, O.** Plön, ForschBer. biol. Stat., **10**, 1903, (293-295).

*Lepidurus viridis* Baird. Australia. **Sayce, O. A.** Melbourne, Proc. R. Soc. Vict., **15**, (N. Ser.), 1903, (242-243).

*Leydigia propinqua* n. sp. **Sars, G. O.** Arch. Math. Naturv., Kristiania, **25**, 1903, (44).

*Limnadoropsis birchii* Baird, *L. brunneus* Spencer and Hall, *L. tatei* S. and H. **Sayce, O. A.** Melbourne, Proc. Roy. Soc. Vict., **15**, (N. Ser.), 1903, (249-250).

*Lynceus cremia* Spencer and Hall, *L. macleayana* King, *L. tatei* Brady. **Sayce, A. O.** l.c. (257-259, pl. XXXVI).

*Macrothrix cornuta* n. sp. **Daday, J.** Math. Termat. Ért., Budapest, **21**, 1903, (346-351).

*Moina brevicornis* n. sp. **Sars, G. O.** Arch. Math. Naturv., Kristiania, **25**, 1903, (44).

——— *microphthalma* n. sp. Siberia occ. **Sars, G. O.** St. Petersburg, Ann. Mus. zool. Ac. Sc., **8**, 1903, (157-194).

*Paralimnadia stanleyana*, King. **Sayce, O. A.** Melbourne, Proc. R. Soc. Vict., **15**, (N. Ser.), 1903, (248-249, with pl. XXXIV).

*Parartemia* n. gen., *P. sietsiana* n. sp. Australia. **Sayce, O. A.** l.c. (231-33, pls. XXVIII-XXIX).

*Rhynchotalona* n. nom. = *Harporhynchus* Sars. Norman, A. M. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (367).

*Scapholeberis aurita* (S. Fischer), a Cladoceran new to Britain. Notes. Gurney, R. L. c. 12, 1903, (630-633, with 2 text-figs.).

———— *echimulata* n. sp. Siberia occ. Sars, G. O. St. Petersburg, Ann. Mus. zool. Ac. Sc., 8, 1903, (157-194).

———— *erinaceus* n. sp. Austria. Daday, E. von. Zool. Jahrb., Jena, Abt. f. Syst., 19, 1903, (27-36).

———— *kingi* n. sp. Sars, G. O. Arch. Nath. Naturv., Kristiania, 25, 1903, (8, pl. I, figs. 2a-c).

*Simocephalus* nn. spp. Mongolia orient. et Siberia occ. Sars, G. O. St. Petersburg, Ann. Mus. zool. Ac. Sc., 8, 1903, (173-174).

———— *sima*, Beiträge zur Kenntnis des Centralnervensystems und der feineren Anatomie. Cunningham, W. A. Jenaische Zs. Natw., 37, 1903, (447-520, mit 3 Taf.).

*Simosa* n. nom = *Simocephalus*, Schoedler. Norman, A. M. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (367).

*Streptocephalus* (?) *archeri* G. O. Sars. Sayce, O. A. Melbourne, Proc. R. Soc. Vict., 15, (N. Ser.), 1903, (240).

*Wlassicsia* n. gen. (~ *Ophryoxus Grimaldina*) W. *pannonica* n. sp. Austria. Daday, E. von. Zool. Jahrb., Jena, Abt. f. Syst., 19, 1903, (37-98).

## LEPTOSTRACA.

*Nebalia* sp., eine neue bathypelagisch lebende Phyllocaride. Ohlin, A. Zool. Anz. Leipzig, 27, 1903, (59-61).

## ARTHROSTRACA.

### AMPHIPODA.

#### GENERAL.

Chevreux, E. Amphipodes recueillis par M. P. Labbé dans les parages du lac Baikal (1902-1903). Bul. Muséum, Paris, 1903, (223-224).

Gariaev, V. P. Evertebratenfauna des Baikal-Sees. (Russ.) St. Petersburg, Trd. Troick.-Klacht, Otd. Russ. Geogr. obšč., v, 2, 1902, [1903], (27-48, mit 1 Karte).

Hansen, H. J. The *Ingolfiellidae* fam. n., a new type of Amphipoda. London, J. Linn. Soc. Zool., 29, 1903, (117-138, pls. XIV-XV).

Holmes, S. J. Synopses of North American Invertebrates, 18. The Amphipoda [of the Atlantic Coast]. Amer. Nat., Boston, Mass., 37, 1903, (267-292).

———— Death-feigning in terrestrial amphipods. Wood's Holl, Mass., Mar. Biol. Lab. Bull., 4, 1903, (191-196).

———— Sex recognition among Amphipods. L. c. 5, 1903, (288-292).

Kane, W. F. de V. A rare blind Amphipod from Lough Mask [with note by A. M. Norman]. Irish Nat., Dublin, 12, 1903, (273-274).

Mayer, P. Die *Caprellidae* der Siboga-Expedition [Revision der Caprelliden der ganzen Welt]. Résultats des explorations zool., botan., océanogr., géol. . . . à bord du Siboga, . . . publiés par Max Weber. Livr. 12, Monogr. 34. Leide (E. J. Brill), 1903, (160, mit 10 Taf.).

#### SPECIAL.

*Acanthogammarus labbei* n. sp. lac Baikal. Chevreux, E. Bul. Muséum, Paris, 1903, (223-224).

*Aciconula* (*caprellidae*) n. gen., *A. miranda* n. sp. Mayer, P. Siboga Expedition. Leide, 1903, Livr. 12, Monogr. 34, (43, pls. VI, IX, X).

*Atylopsis latipalpus* n. sp. Walker, A. O. and Scott, A. Nat. Hist. Sokotra, 1903, (222).

*Atylus antarcticus* n. sp. Walker, A. O. London, J. Linn. Soc. Zool., 29, 1903, (58-59).

*Caprella* nn. spp. Mayer, B. Siboga Expedition. Leide, 1903, Livr. 12, Monogr. 34, (92-128).

*Cheirimedon* nn. spp. Walker, A. O. London, J. Linn. Soc. Zool., 29, 1903, (41).

*Crangonyx bowersii* n. sp. **Ulrich**, C. J. Lincoln, Nebr., Trans. Amer. Microsc. Soc., **23**, 1901, [1902], (83-100, with pl.).

*Dodecas hexacentrum* n. sp. **Mayer**, P. Siboga Expedition. Leide, 1903, Livr. 12, Monogr. 34, (29, pls. I, VI).

*Elasmopus sokotras* n. sp. **Walker**, A. O. and **Scott**, A. Nat. Hist. Sokotra, **1903**, (223).

*Epimeria inermis* n. sp. **Walker**, A. O. London, J. Linn. Soc. Zool., **29**, 1903, (54-55).

*Eusirus laevis* n. sp. **Walker**, A. O. l.c. (55).

*Gammarus duebeni*, a strange habitat. **Meek**, A. Rep. Northumb. Sea Fish. Comm., **1903**, (51-53).

*Hoplonyx stebbingi* n. sp. **Walker**, A. O. London, J. Linn. Soc. Zool., **29**, 1903, (52).

*Hyalella fazoni* n. sp. Costa Rica. **Stebbing**, T. R. R. Washington, D.C., Smithsonian Inst., Nation. Mus. Proc., **26**, 1903, (928).

*Ingolfiella* n. gen., (*Ingolfiellidae* n. fam.), *I. abyssi*, *I. littoralis* nn. spp. **Hansen**, H. J. London, J. Linn. Soc. Zool., **29**, 1903, (118-130).

*Jassa goniamera* n. sp. **Walker**, A. O. l.c. (61).

—— *marmorata* n. sp. N. E. America. **Holmes**, S. J. Amer. Nat., Boston, Mass., **37**, 1903, (289).

*Kuria* n. gen., *K. longimanus* n. sp. **Poock**, R. I., **Walker**, A. O. and **Scott**, A. Nat. Hist. Sokotra, **1903**, (228-229).

*Luconacia* n. gen., *L. incerta* n. sp. Gulf of Mexico. **Mayer**, P. Siboga Expedition. Leide, 1903, Livr. 12, Monogr. 34, (49, pls. II, VI, IX).

*Lysianax urdus* n. sp. **Poock**, R. I., **Walker**, A. O. and **Scott**, A. Nat. Hist. Sokotra, **1903**, (220).

*Lysianopsis* (? n. gen.), *L. alba* n. sp. **Holmes**, S. J. Amer. Nat., Boston, Mass., **37**, 1903, (276).

*Metaprotella africana* n. sp. **Mayer**, P. Siboga Expedition. Leide, 1903, Livr. 12, Monogr. 34, (42, pl. I).

*Metaproto* n. gen. (near *Proto*) for *M. novaehollandiae* Haswell. **Mayer**, P. l.c. (26).

*Melita parvimana* n. sp. N. E. America. **Holmes**, S. J. Amer. Nat., Boston, Mass., **37**, 1903, (279).

*Monoculodes edwardsi* n. sp. N. E. America. **Holmes**, S. J. l.c. (275).

*Monoliropus* n. gen., *M. agilis* n. sp. Gulf of Siam. **Mayer**, P. Siboga Expedition. Leide, 1903, Livr. 12, Monogr. 34, (53-54, pl. II, VII, IX).

*Noculacia* n. gen., *N. bullata*, *N. bogisa* nn. spp. E. Indies. **Mayer**, P. l.c. (50-52, pls. II, VII, IX).

*Oedicerus neunesi* n. sp. **Walker**, A. O. London, J. Linn. Soc. Zool., **29**, 1903, (53-54).

*Oradarea* n. gen., *O. longimana* n. sp. **Walker**, A. O. l.c. (56-57).

*Orchestia carimana* Heller. **Godon**, J. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (50).

*Orchomenella* nn. spp. **Walker**, A. O. London, J. Linn. Soc. Zool., **29**, 1903, (46-48).

*Orchomenopsis* nn. spp. **Walker**, A. O. l.c. (44-46).

*Orthoprotella* n. gen. for *O. australis* Haswell. **Mayer**, P. Siboga Expedition. Leide, 1903, Livr. 12, Monogr. 34, (35).

*Paedaridium* n. gen., *P. miserum* n. sp. Moluccas. **Mayer**, P. l.c. (18, pls. I, VI, IX).

*Paracaprella* nn. spp. **Mayer**, P. l.c. (66-68, pls. II, VII, IX).

*Paradeutella* nn. spp. **Mayer**, P. l.c. (45-47, pls. II, VI, IX).

*Parambasia* n. gen., *P. forbesii* n. sp. **Poock**, R. I., **Walker**, A. O. and **Scott**, A. Nat. Hist. Sokotra, **1903**, (221).

*Paraphoxus spinosus* n. sp. N. E. America. **Holmes**, S. J. Amer. Nat., Boston, Mass., **37**, (276).

*Paraprotella* n. gen., *P. prima*, *P. secunda* nn. spp. **Mayer**, P. Siboga expedition. Leide, 1903, Livr. 12, Monogr. 34, (38, 71, pls. I, VI, IX).

*Paraproto* n. gen. (near *Proto*) for *P. spinosa* Haswell. **Mayer**, P. l.c. (24).

*Piperella* n. gen., *P. grata* n. sp. S. Georgia. **Mayer**, P. l.c. (58-59, pls. II, VII, IX).

*Prellicana* n. gen., *P. minima* n. sp. Gulf of Siam. **Mayer**, P. l.c. (31, pls. I, VI, IX).

*Proliropus* n. gen., *P. dubius* n. sp. Singapore. **Mayer**, P. l.c. (55, pls. II, VII, IX).

*Propodalirius* n. gen., *P. insolitus* n. sp. Gulf of Siam. **Mayer**, P. l.c. (62, pls. II, VII, IX).

*Protella similis* n. sp. Dutch E. Indies. **Mayer**, P. l.c. (34, pls. I, VI).

*Proto antillensis* n. sp. St. Thomas. **Mayer**, P. l.c. (21, pls. I, VI).

*Protogeton* n. gen., *P. inflatus*, *P. incertus* nn. spp. **Mayer**, P. l.c. (28-29, pls. I, VI, IX).

*Protomima* n. gen., *P. imitatrix*, *P. denticulata* nn. spp. **Mayer**, P. l.c. (22, pl. I, VI, IX).

*Protoplesius* n. gen., *P. enigma*, *P. falz* nn. spp. **Mayer**, P. l.c. (23-24, pls. I, VI, X).

*Pseudoproteo* n. gen., *P. fallax* n. sp. **Mayer**, P. l.c. (27, pls. VI, IX).

*Stenothoe* nn. spp. N. E. America. **Holmes**, S. J. Amer. Nat., Boston, Mass., 37, 1903, (278).

*Talitrus sylvaticus* from Launching Place, Victoria. **Barnard**, F. G. A. Vict. Nat., Melbourne, 19, 1903, (147).

*Talorchestia fritzi* n. sp. Costa Rica. **Stebbing**, T. R. R. Washington, D.C., Smithsonian Inst., Nation. Mus. Proc., 26, 1903, (925-931),

—— *longicornis*, general anatomy, general ethology. **Smallwood**, M. E. Brooklyn, N.Y., Inst. Arts. Sci. Cold Spring Harbor Monog., No. 1, 1903, (27, with 3 pls.).

*Thaumatope* nn. spp. der deutschen Tiefsee-Expedition. **Woltereck**, R. Zool. Anz., Leipzig, 26, 1903, (447-459, 504, mit 1 Taf.).

*Triantella* n. gen., *T. solitaria* n. sp. **Mayer**, P. Siboga Expedition. Leide, 1903, Livr. 12, Monogr. 34, (32, pls. I, VI, IX).

*Triliropus* n. gen., *T. uncinatus* n. sp. Gulf of Siam. **Mayer**, P. l.c. (54-55, pls. II, VII, IX).

*Triperopus* n. gen., *T. mirus* n. sp. **Mayer**, P. l.c. (55-56, pls. II, VII, IX).

*Tritella* nn. spp. Alaska and California. **Mayer**, P. l.c. (48, pls. II, VI, IX).

*Tryphosa* nn. spp. **Walker**, A. O. London, J. Linn. Soc. Zool., 29, 1903, (49-51).

## ISOPODA.

### GENERAL.

**Bonnier**, J. Sur deux types nouveaux d'Epicarides, parasites d'un Cumacé et d'un Schizopode. Paris, C.-R. Acad. sci., 136, 1903, (102-103).

**Norman**, A. M. British Land Isopoda. Supplement. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (369-372).

**Richardson**, H. Isopods collected at the Hawaiian Islands by the U. S. Fish Commission steamer Albatross. Washington, D.C., Bull. U. S. Fish Com., 1903, (47-54).

**Sainte-Claire Deville**, J. Exploration entomologique des grottes des Alpes-Maritimes. Ann. soc. ent., Paris, 71, 1902, [1903], (695-709, av. fig.).

### SPECIAL.

*Aega quadratasinus* n. sp. Hawaiian Is. **Richardson**, H. Washington, D.C., Bull. U. S. Fish. Com., 1903, (47-54).

*Anthurus gracilis* Leach, Statocysten. **Thienemann**, A. Zool. Anz., Leipzig, 26, 1903, (406-410).

*Anuropus branchiatus* Bedd., a deep sea Isopod. **Hansen**, H. J. London, J. Linn. Soc. Zool., 29, 1903, (12-25, pl. IV).

*Armadillo* nn. spp. Malay Peninsula. **Budde-Lund**, G. in **Lanchester**, W. F. London, Proc. Zool. Soc., 1902, 2, [1903], (380).

*Asellus*, nota preliminar sopra una forma cieca. **Lepri**, G. Mon. zool. ital., Firenze, 13, 1902, (Supplemento), (37-38).

*Bathynomus giganteus* A. M. Edw. **Hansen**, H. J. London, J. Linn. Soc. Zool., 29, 1903, (12-25, pl. IV).

*Brackenridgia* n. gen., *B. cavernarum* n' sp. **Eigenmann** and **Ulrich**. Lincoln, Nebr. Trans. Amer. Microsc. Soc., 23, 1901, [1902], (83-100).

*Caecidotea smithii* n. sp. **Ulrich**, C. J. Lincoln, Nebr., Trans. Amer. Microsc. Soc., 23, (1901), 1902, (83-100, with pl.).

*Cirolana cubensis* n. sp. Cuba. Hay, W. P. Washington, D.C., Smithsonian Inst., Nation. Mus. Proc., **26**, 1903, (429-435).

— *neglecta*, diminution progressive de la pigmentation oculaire. Dollfus, A. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (65).

*Cumonicus* n. gen., *C. krupp*i n. sp. Mediterranean. Bonnier, J. in Lo Bianco, S. Mitt. zool. Stat. Neapel, Berlin, **16**, 1903, (109-279).

— sp. parasite sur un cumacé. Bonnier, J. Paris, C.-R. Acad. sci., **136**, 1903, (102-103).

*Cymothoa*. Nusbaum, J. Kosmos, Lwów, **28**, 1903, (154-177, av. 2 pls.).

— *pulchrum* n. sp. Malay Peninsula. Lan- chester, W. F. London, Proc. Zool. Soc., **1902**, 2, [1903], (377, pl. XXXV).

*Eutophilus* n. gen., *E. omnitectus* n. sp. Hawaii. Richardson, H. Washington, D.C., Bull. U. S. Fish. Com., **1903**, (52, 53).

*Philoscia* nn. spp. Malay Peninsula. Budde-Lund, G. in Lan- chester, W. F. London, Proc. Zool. Soc., **1902**, 2, [1903], (379).

*Porcellio*, parasite of. Brues, C. T. Philadelphia, Pa., Ent. News Acad. Nat. Sci., Amer. Ent. Soc., **14**, 1903, (291).

*Procladius* n. gen., *P. lo biancoi* n. sp. Mediterranean. Bonnier in Lo Bianco, S. Mitt. Zool. Stat. Neapel, Berlin, **16**, 1903, (260).

— *lo biancoi* n. sp. ? parasite sur *Gastrocaccus normani*. Bonnier, J. Paris, C.-R. Acad. sci., **136**, 1903, (103).

*Rocinela hawaiiensis* n. sp. Hawaii. Richardson, H. Washington, D.C., Bull. U. S. Fish. Com., **1903**, (47-54).

— *mundana* n. sp. Malay Peninsula. Lan- chester, W. F. London, Proc. Zool. Soc., **1902**, 2, [1903], (378, pl. XXXV).

*Sphaeroma felix* n. sp. Malay Peninsula. Lan- chester, W. F. l.c. (379, pl. XXXV).

— *grantii* n. sp. Walker, A. O. and Scott, A. Nat. Hist. Sokotra, **1903**, (218).

*Spherillo griesacens* n. sp. Malay Peninsula. Budde-Lund, G. in Lan-

chester, W. F. London, Proc. Zool. Soc., **1902**, 2, [1903], (380).

*Stegophryxus* n. gen., *S. hyptius* n. sp. New England. Thompson, M. T. Washington, D.C., Bull. U. S. Fish. Com., **21**, 1901, (53-56, with pl.).

*Toradja conglobator* n. sp. Malay Peninsula. Budde-Lund, G. in Lan- chester, W. F. London, Proc. Zool. Soc., **1902**, 2, [1903], (380).

*Trichoniscus antennatus* n. sp. Malay Peninsula. Budde-Lund, G. in Lan- chester, W. F. l.c. (379).

*Zonophryxus* n. gen., *Z. retrodens* n. sp. Hawaii. Richardson, H. Washing- ton, D.C., Bull. U. S. Fish. Com., **1903**, (47-54).

## THORACOSTRACA.

Cuénot, L. L'organe phagocytaire des crustacés décapodes. Paris, C.-R. Acad. sci., **137**, 1903, (619-621).

## DECAPODA.

### GENERAL.

Bohn, G. Des mécanismes respira- toires chez les crustacés décapodes : essai de physiologie évolutive, étho- logique et phylogénique. Bul. sci. France Belgique, Paris, **36**, 1902, (178-551 av. fig.).

Borradaile, L. A. On the genera of the *Dromiidae*. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (297-303).

— On the classification of the Thalassinidea. l.c. **12**, 1903, (534-551); Addendum, *ib.*, (638).

— Marine crustaceans. IV. Some remarks on the classification of the crabs. V. The crabs of the Catometope families. VI. The sand crabs (Oxy- stomata). VII. The barnacles (Cirre- pedia). In: Gardiner, the Fauna and Geography of the Maldiv and Laccadive Archipelagoes, **1**, pt. 4, (424-443, pl. XXII, and text figs. 10-119); IX. The sponge crabs (Dromiacea); *ib.*, **2**, pt. 1, 1903, (574-578, pl. XXXIII); X. The spider crabs (Oxyrhyncha); XI. On the classification and genealogy of the reptant Decapods; *ib.*, pt. 2, (681-698, pls. XLVII-XLVIII).

**Calman, W. T.** On Macrurous Crustacea obtained by Mr. George Murray during the cruise of the "Oceana" in 1898. *Ann. Mag. Nat. Hist.*, London, (Ser. 7), **11**, 1903, (416-420).

**Fritel, P. H.** Crustacés fossiles. Les Thoracostracés. *Naturaliste*, Paris, (sér. 2), **25**, 1903, (29-32).

**Koltzoff, Nicolas.** Untersuchungen über Spermien und Spermio-genese bei Decapoden. Vorläufige Mitteilung. *Anat. Anz.*, Jena, **24**, 1903, (83-95).

**Lörenthey.** Neuere Beiträge zur tertiären Decapodenfauna Ungarns. *Math.-natw. Ber. Ungarn.*, Leipzig, **18**, (1900), 1903, (98-120, mit 2 Taf.).

**Monticelli, F. S. e Lo Bianco, S.** . . . Peneidi del Golfo di Napoli: sul [loro] sviluppo. *Napoli, Boll. Soc. Nat.*, **15**, (1901), 1902, (159).

**Pocock, R. I., Walker, A. G. and Scott, A.** Crustacea: Malacostraca. In "The Natural History of Sokotra and Abd-el-Kuri . . ." Edited by Henry O. Forbes. Liverpool, Special Bull. Mus., 1903. I. The Decapoda of Sokotra, by R. I. Pocock, *ib.*, (212-213, 2 figs. in text). II. Decapod and sessile-eyed Crustaceans from Abd-el-Kuri, [Brachyura by] R. I. Pocock, [Macrura and Ecdriophthalma by] A. O. Walker and A. Scott., *ib.*, (216-232, pls. XIVa and XIVb) [with notes by H. O. Forbes].

**Terasaki, T.** . . . [Brachyurous decapoda of Japan]. (Japanese) *Dobuts. Z.*, Tokyo, **15**, 1903, (12-17, 44-47, 177-186, 234-241, 356-359, 431-440, with figs.).

**Thomson, G. M.** On the New Zealand Phyllobranchiate Crustacea-Macrura. London, *Trans. Linn. Soc. Zool.*, **8**, 1903, (433-453, pls. XXVII-XXIX.).

**Woodward, H.** On some fossil prawns from the Osborne Beds of the Isle of Wight. *Geol. Mag.*, London, [4], **10**, 1903, (97-99, pl. V).

## SPECIAL.

*Alpheus heterochelis*, regeneration. **Wilson, E. B.** Wood's Holl, Mass., *Mar. Biol. Lab. Bull.*, **4**, 1903, (197-210).

*Amalopenaeus elegans* S. I. Smith. **Calman, W. T.** *Ann. Mag. Nat. Hist.*, London, (Ser. 7), **11**, 1903, (416-418).

*Anchistia kornii* n. sp. Mediterranean. **Lo Bianco, S.** *Mitt. zool. Stat. Neapel*, Berlin, **16**, 1903, (109-279).

*Andorina* n. gen., *A. elegans*† n. sp. **Lörenthey, E.** Ungarn. *Math.-natw. Ber. Ungarn*, Leipzig, **17**, (1899), 1901, (328-336, mit 1 Taf.).

*Aristeus antennatus*, sulla [sua] probabile larva. **Monticelli, F. S.] e Lo Bianco, S.]** *Mon. zool. ital.*, Firenze, **13**, 1902, (Supplemento), (30-31).

*Aziopsis* n. gen., definition, type *A. affinis*. **Borradalle, L. A.** *Ann. Mag. Nat. Hist.*, London, (Ser. 7), **12**, 1903, (538-539).

*Callinectes hastatus*, life history. **Paulmier, F. C.** Albany Univ., N.Y., *Rep. St. Mus.*, **55**, (1901), 1903, (r. 129-r. 136).

*sapidus*, parasite. **Coker, R. E.** Washington, D.C., *Bull. U. S. Fish Com.*, **21**, (1901), 1902, (339-412, with text fig.).

*Cambarus*, habits. **Harris, J. A.** *Amer. Nat.*, Boston, Mass., **37**, 1903, (601-608).

a new parasite from. **Osborn, H. L.** N.Y. Wood's Holl, Mass., *Mar. Biol. Lab. Bull.*, **5**, 1903, (63-73, with fig. in text).

nn. spp., Missouri. **Steele, M.** Cincinnati, Ohio, Univ. Cincin. *Bull.*, No. **10**, 1902, (54, with pl.).

*affinis*, psychology. **Yerkes, R. M. and Huggins, G. E.** Harvard Psychological studies, **1**, *Psych. Rev. Monogr. Suppl.*, New York, N.Y., **4**, 1903, (565-577).

*virilis*, protective resemblance. **Clapp, G. H.** Pittsburg, Pa., *Ann. Carnegie Mus.*, **1**, 1901, (253).

*Cancer pagurus*, migrations. **Meek, A.** *Rep. Northumb. Sea Fish. Comm.*, **1903**, (33-35).

structural changes accompanying the ecdysis. **Witten, E. P.** *l.c.* (42-48, 1 pl., 1 text-fig.).

*Carcinus maenas*, larval and early young stages and rate of growth. **Williamson, H. C.** Glasgow, *Rep. Fish. Board*, **21**, **3**, 1903, (136-179, pls. VII-XIII).

*Clibanarius longitarsis* var. *trivittata* n. var. Malay Peninsula. **Lanchester**, W. F. London, Proc. Zool. Soc., **1902**, 2, [1903], (363-381, pl. XXXIV).

*Crangon fasciatus* Risso, *C. tri-spinosus* (Hailstone). **Gurney**, R. *l.c.* **1903**, 2, (24-30, pls. V, VI).

*Cryptodromia hirsuta* n. sp. Maldive Islands. **Borradaile**, L. A. Fauna of the Maldive and Laccadive Islands, **2**, (577, pl. XXXIII).

*Cryptodromiopsis* n. gen. for *C. tridens* n. sp. **Borradaile**, L. A. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (299).

——— *tridens* n. sp. **Borradaile**, L. A. Fauna Mald. Laccad. Arch., **2**, (578, pl. XXXIII).

*Cymonotus*, modification of the eye peduncles in crabs of this genus, and 2 nn. spp. **Lanchester**, E. R. Q. J. Microsc. Sci., London, (N. Ser.), **47**, 1903, (439-463, pls. XXXIII, XXXIV, 12 text-figs.).

*Diogenes* nn. spp. Malay Peninsula. **Lanchester**, W. F. London, Proc. Zool. Soc., **1902**, 2, [1903], (366-368).

*Dromides* n. gen. **Borradaile**, L. A. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (299).

*Dromidiopsis tridentatus* n. sp., *D. australiensis* var. *bidens* n. var. **Borradaile**, L. A. Fauna Mald. Laccad. Arch., **2**, (576, pl. XXXIII).

*Ebalia maldivensis* n. sp. **Borradaile**, L. A. *l.c.* **1**, (437).

*Eryonicus puritanii* n. sp. Mediterranean. **Lo Bianco**, S. Mitt. Zool. Stat. Neapel, Berlin, **16**, 1903, (109-279).

*Eupagurus*, metamorphosis. **Thompson**, M. T. Boston, Mass., Proc. Soc. Nat. Hist., **31**, 1903, (147-209, with 7 pls.).

——— *bernadus*. **Launoy**, L. Paris, C.-R. Acad. sci., **136**, 1903, (109-112).

——— *prideauxi* (Heller). **Schuster**, E. H. J. Biometrika, Cambridge, **2**, 1903, (191-210, with 1 fig.).

*Gelasimus pugilator* Latr. **Duncker**, G. *l.c.* **3**, 1903, (307-320).

*Glyphaea stokesi*† n. sp. **Weller**, S. Chicago, Ill., J. Geol. Univ. Chic., **11**, 1903, (413-419, with pl.).

*Homarus americanus*. **Herriek**, F. H. Washington, D.C., Bull. U. S. Fish. Com., **21**, (1901), 1902, (161-166, with text-fig.).

——— *vulgaris*, neuere Untersuchungen. **Ehrenbaum**, [E.] Berlin, Mitt. D. Seefischereiver., **19**, 1903, (146-159).

——— mécanisme de l'émission des larves. **Fabre-Domergue** et **Réatrix**. Paris, C.-R. Acad. sci., **136**, 1903, (1408-1409).

*Lepidopa*, revision of the genus, nn. spp. **Benedict**, J. E. Washington, D.C., Smithsonian Inst., Nation. Mus., Proc., **26**, 1903, (889-895).

*Leucosilia maldivensis* n. sp. **Borradaile**, L. A. Fauna Mald. Laccad. Arch., **1**, (437).

*Macrophthalmus latipes* n. sp. **Borradaile**, L. A. *l.c.* (433).

*Myra intermedia* n. sp. **Borradaile**, L. A. *l.c.* (438).

*Naushonia crangonoides*, postembryonic ontogeny. **Thompson**, M. T. Boston, Mass., Proc. Soc. Nat. Hist., **31**, 1903, (1-21, with 3 pls.).

*Neaxius* n. subgen., type *Axius acanthus* A. M. Edw. **Borradaile**, L. A. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (537).

*Pagurus longicarpus*, parasite. **Thompson**, M. T. Washington, D.C., Bull. U. S. Fish. Com., **21**, 1901, (53-56, with pl.).

*Palaemon (Leander) rectirostris* Zadd. **Kališevsky**, M. T. Odessa, Ann. Soc. Nat., **25**, livr. 2, 1903, (134-138).

*Palaemonetes* nn. spp. Cuba. **Hay**, W. P. Washington, D.C., Smithsonian Inst., Nation. Mus. Proc., **26**, 1903, (429-435).

*Palaemonida* n. gen., *P. defecta*† n. sp. Tertiär, Ungarn. **Lörenthey**, E. Math.-natw. Ber. Ungarn, Leipzig, **18**, (1900), 1903, (98-120).

*Petalidium* species from "Challenger" collection. **Hansen**, H. J. London, Proc. Zool. Soc., **1903**, **1**, (54-56, pl. XI, figs. 1a-1g).

*Phlyctenodes steinmanni*† n. sp. Tertiär, Ungarn. **Lörenthey**, E. Math.-natw. Ber. Ungarn, Leipzig, **18**, (1900), 1903, (98-120).

*Pinnotheres tenuipes* n. sp. **Borradalle**, L. A. Fauna Mald. Laccad. Arch., 1, (431).

*Plesionika capreensis* n. sp. Mediterranean. **Lo Bianco**, S. Mitt. Zool. Stat. Neapel, Berlin, 16, 1903, (109-279).

———— *cottei* n. sp. **Pfeffer** in **Kotte**, E. Zool. Jahrb., Jena, Abt. f. Anat., 17, 1903, (619-658, mit 5 Taf.).

*Potamobius*. **Stecka**, S. Kosmos, Lwów, 23, 1903, (21-43, 1 tab.).

*Potamon (Potamonautes) ecorseii* n. sp. Soudan français. **Marchand**, E. Nantes, Bul. soc. sci. nat., (sér. 2), 2, (2<sup>e</sup> semest.), 1902, (331-343, av. 1 pl.).

———— *latidactylum* n. sp. Upper Guinea. **Man**, J. G. de. London, Proc. Zool. Soc., 1903, 1, (41-47, pl. IX).

*Ranina bittneri*† n. sp. Tertiär, Ungarn. **Lörenthey**, E. Math.-natw. Ber. Ungarn, Leipzig, 18, (1900), 1903, (98-120).

*Richardina fredericii* r. sp. Mediterranean. **Lo Bianco**, S. Mitt. Zool. Stat. Neapel, Berlin, 16, 1903, (109-279).

*Selcymia* n. gen., *S. laevis* n. sp. **Borradalle**, L. A. Fauna Mald. Laccad. Arch., 1, (430-431).

*Sergestes* species from "Challenger" collection, *S. challengerii* n. sp. luminous organs, *S. similis* n. sp. **Hansen**, H. J. London, Proc. Zool. Soc., 1903, 1, (56-70, pls. XI-XII).

———— *inermis* n. sp. **Hansen**, H. J. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (479-481).

*Telphosograpsus* n. gen., *T. laevis*† n. sp. Tertiär, Ungarn. **Lörenthey**, E. Math.-natw. Ber. Ungarn, Leipzig, 18, (1900), 1903, (98-120).

*Tlos latus* n. sp. **Borradalle**, L. A. Fauna Mald. Laccad. Arch., 1, (437).

## SCHIZOPODA.

*Mysis*, eine Zwischenform zwischen *M. oculata* Fabr. und *M. relicta* (Lövén). **Linnberg**, E. Zool. Anz., Leipzig, 26, 1903, (577-581).

(N 2-9053)

## STOMATOPODA.

### GENERAL.

**Lanchester**, W. F. Marine Crustaceans. VIII. Stomatopoda, with an account of the varieties of *Gonodactylus chirajua*. In: Gardiner, The Fauna and Geography of the Maldives and Laccadive Archipelagoes, 1, pt. 4, (444-458, pl. XXIII).

### SPECIAL.

*Alimerichthys* nn. spp. **Lanchester**, W. F. Fauna Mald. Laccad. Arch., 1, pt. 4, (444-458, pl. XXIII).

## CUMACEA.

### GENERAL.

**Zimmer**, C. Die Cumaceen des Museums für Naturkunde in Berlin. Zool. Jahrb., Jena, Abt. f. Syst., 18, 1903, (665-694).

### SPECIAL.

*Cuma pulex* n. sp. **Zimmer**, C. Zool. Jahrb., Jena, Abt. f. Syst., 18, 1903, (665-694).

*Leptostylis* nn. spp. **Zimmer**, C. l.c. (665-694).

*Pseudoleucon* n. gen., *P. sorex* n. sp. **Zimmer**, C. l.c. (665-694).

## LIST OF NEW GENERA AND SPECIES.

ACANTHOGAMMARUS [Amphipoda].

———— *labbei*. Chevreux. 18.

ACICORNULA n. gen [Amphipoda]. Mayer. 97.

———— *miranda*. Mayer. 97.

AEGA [Isopoda].

———— *quadratasinus*. Richardson. 117.

AETIDEUS [Copepoda].

———— *tenuirostris*. Wolfenden. 168.

ALIMERICHTHUS [Stomatopoda].

———— *pyramidalis*. Lanchester. 83.

———— *unidens*. Lanchester. 83.



- ALONA** [Phyllopoda].  
 ——— *acuticostata*. Sars. 121.
- AMEIRA** [Copepoda].  
 ——— *ambigua*. Scott. 131.  
 ——— *minor*. Thompson and Scott. 150.  
 ——— *pusilla*. Scott. 131.  
 ——— *tenuipes*. Thompson and Scott. 150.
- ANCHISTIA** [Decapoda].  
 ——— *kornii*†. Lo Bianco. 89.
- ANCORABOLUS** n. gen. [Copepoda].  
 Norman. 104.  
 ——— *mirabilis*. Norman. 104.
- ANDORINA** n. gen. [Decapoda]. Lörenthey. 91.  
 ——— *elegans*†. Lörenthey. 91.
- ARMADILLO** [Isopoda].  
 ——— *infuscatus*. Budde-Lund. 82.  
 ——— *pallidus*. Budde-Lund. 82.
- ARTEMIA** [Phyllopoda].  
 ——— *australis*. Sayce. 124.  
 ——— *westraliensis*. Sayce. 124.
- ASTEROCHERES** [Copepoda].  
 ——— *major*. Thompson and Scott. 150.  
 ——— *manaarensis*. Thompson and Scott. 150.  
 ——— *minor*. Thompson and Scott. 150.
- ASTEROPONTIUS** n. gen. [Copepoda].  
 Thompson and Scott. 150.  
 ——— *attenuatus*. Thompson and Scott. 150.  
 ——— *typicus*. Thompson and Scott. 150.
- ATYLOPSIS** [Amphipoda].  
 ——— *latipalpus*. Walker and Scott. 116.
- ATYLUS** [Amphipoda].  
 ——— *antarcticus*. Walker. 159.
- AXIOPSIS** n. gen. [Decapoda]. Borradaile. 11.
- BALANUS** [Cirripedia].  
 ——— *aeneas*. Lancheater. 82.  
 ——— *amaryllis*: *dissimilis* n. subsp. Lancheater. 82.  
 ——— *dybowskii*. Gruvel. 45, 47.  
 ——— *maldicensis*. Borradaile. 12.  
 ——— *violaceus*. Gruvel. 45, 47, 48.
- BOECKELLA** [Copepoda].  
 ——— *orientalis*. Sars. 123.
- BOSMINELLA** n. gen. [Phyllopoda]. Daday von. 24.  
 ——— *anisitsi*. Daday von. 24.
- BOSMINOPSIS** [Phyllopoda].  
 ——— *ishikawai*. Klocke. 74.
- BRACKENRIDGIA** n. gen. [Isopoda].  
 Eigenmann. 157.  
 ——— *cavernarum*. Ulrich. 157.
- BRANCHINELLA** n. gen. [Phyllopoda].  
 Sayce. 124.  
 ——— *eyrensis*. Sayce. 124.
- CAECIDOTEA** [Isopoda].  
 ——— *smithii*. Ulrich. 157.
- CAMBARUS** [Decapoda].  
 ——— *ayersii*. Steele. 142.  
 ——— *ichitmani*. Steele. 142.
- CAPRELLA** [Amphipoda].  
 ——— *alaskana*. Mayer. 97.  
 ——— *angulosa*. Mayer. 97.  
 ——— *anomala*. Mayer. 97.  
 ——— *bacillus*. Mayer. 97.  
 ——— *breistrostris*. Mayer. 97.  
 ——— *carina*. Mayer. 97.  
 ——— *chelimana*. Mayer. 97.  
 ——— *cicur*. Mayer. 97.  
 ——— *constantina*. Mayer. 97.  
 ——— *corvina*. Mayer. 97.  
 ——— *falsa*. Mayer. 97.  
 ——— *ferrea*. Mayer. 97.  
 ——— *gigantochir*. Mayer. 97.  
 ——— *iniquilibra*. Mayer. 97.  
 ——— *innocens*. Mayer. 97.  
 ——— *laevipes*. Mayer. 97.  
 ——— *laeviuscula*. Mayer. 97.  
 ——— *mendax*. Mayer. 97.  
 ——— *mixta*. Mayer. 97.  
 ——— *paulina*. Mayer. 97.  
 ——— *rhinoceros*. Mayer. 97.  
 ——— *simia*. Mayer. 97.  
 ——— *singularis*. Mayer. 97.  
 ——— *striata*. Mayer. 97.  
 ——— *subtilis*. Mayer. 97.  
 ——— *ungulina*. Mayer. 97.  
 ——— *unica*. Mayer. 97.  
 ——— *vana*. Mayer. 97.  
 ——— *vidua*. Mayer. 97.
- CENTROPAGES** [Copepoda].  
 ——— *dorsispinatus*. Thompson and Scott. 150.  
 ——— *tenuiremis*. Thompson and Scott. 150.
- CEYLONIA** n. gen. [Copepoda].  
 Thompson and Scott. 150.  
 ——— *aculeata*. Thompson and Scott. 150.

- CHEIRIMEDON** [Amphipoda].  
 — *fougneri*. Walker. 159.  
 — *hansonii*. Walker. 159.
- CHELONOBIA** [Cirripedia].  
 — *manati*. Gravel. 45, 47.
- CHLAMYDOTHECA** [Ostracoda].  
 — *mxicana*. Sharpe. 135.
- CHONDRACANTHUS** [Copepoda].  
 — *cynoglotidis*. Thompson and Scott. 150.
- Chondrocarpus** n. gen. [Copepoda].  
 — Bassett-Smith. 3.  
 — *reticulosus*. Bassett-Smith. 3.
- CIROLANA** [Isopoda].  
 — *cubensis*. Hay. 60.
- CLETODES** [Copepoda].  
 — *armata*. Scott. 128.  
 — *neglecta*. Scott. 131.  
 — *varians*. Scott. 104.
- Cletopontius** n. gen. [Copepoda].  
 — Thompson and Scott. 150.  
 — *serratus*. Thompson and Scott. 150.
- CLIBANARIUS** [Decapoda].  
 — *longitarsis* var. *trivittata* n. var. Lancheater. 82.
- COLLOCHERES** [Copepoda].  
 — *giesbrechti*. Thompson and Scott. 150.
- CRANGONYX** [Amphipoda].  
 — *bouversii*. Ulrich. 157.
- CRYPTODROMIA** [Decapoda].  
 — *hirsuta*. Borradaile. 12.
- Cryptodromiopsis** n. gen. [Decapoda].  
 — Borradaile. 10.  
 — *tridens*. Borradaile. 12.
- CRYPTOPHIALUS** [Cirripedia].  
 — *striatus*. Berndt. 7.
- CUMA** [Cumacea].  
 — *pulex*. Zimmer. 175.
- Cumonicus** n. gen. [Isopoda]. Bonnier.  
 — 89.  
 — *kruppi*. Bonnier. 89.
- CYLOPINA** [Copepoda].  
 — *belgicae*. Giesbrecht. 41.  
 — *schneideri*. Norman. 104.
- CYLOPS** [Copepoda].  
 — *cavernarum*. Ulrich. 157.  
 — *learii*. Ulrich. 157.

- CYMONOMUS** [Decapoda].  
 — *normani*. Lankester. 84.  
 — *valdiviae*. Lankester. 84.
- CYMOTHOA** [Isopoda].  
 — *pulehrum*. Lancheater. 82.
- CYPRIDOPSELLA** [Ostracoda].  
 — *arcuata*. Sars. 122.  
 — *granulata*. Sars. 122.
- CYPRIDOPSIS** [Ostracoda].  
 — *adusta*. Sars. 121.  
 — *dubia*. Sars. 121.  
 — *exigua*. Sars. 121.
- CYPRIS** [Ostracoda].  
 — *crenulata*. Sars. 121.  
 — *decorata*. Sars. 121.  
 — *inflata*. Sars. 122.  
 — *ovalis*. Sars. 122.  
 — *vittata*. Sars. 121.
- DACTYLOPHUSIA** [Copepoda].  
 — *aemula*. Thompson and Scott. 150.  
 — *ceylonica*. Thompson and Scott. 150.  
 — *dentata*. Thompson and Scott. 150.  
 — *hamiltoni*. Thompson and Scott. 150.  
 — *havelocki*. Thompson and Scott. 150.  
 — *hirsuta*. Thompson and Scott. 150.  
 — *laticauda*. Thompson and Scott. 150.  
 — *platysoma*. Thompson and Scott. 150.  
 — *robusta*. Thompson and Scott. 150.
- DACTYLOPUS** [Copepoda].  
 — *littoralis*. Scott. 131.  
 — *longirostris* var. *finmarchicus* n. var. Norman. 104.  
 — *mixtus*. Scott. 131.  
 — *strömii* var. *arcticus* n. var. Scott in Norman. 104.  
 — *strömii* var. *farøensis* n. var. Scott. 123.  
 — *vararensis*. Scott. 131.
- Dactylopusia** n. nom. [Copepoda].  
 — Norman. 105.
- DAPHNIA** [Phyllopus].  
 — *triquetra*. Sars. 122.
- Daphniopsis** n. gen. [Phyllopus]. Sars.  
 — 122.
- Darányia** n. gen. [Phyllopus].  
 — Lörenthey. 91.  
 — *granulata*†. Lörenthey. 91.

- DELAVALIA** [Copepoda].  
 ——— *minutissima*. Scott. 131.  
 ——— *robusta* var. *finmarchica* n. var. Scott. 104.
- DIAPTOMUS** [Copepoda].  
 ——— *acutilobatus*. Sars. 122.  
 ——— *incrassatus*. Sars. 122.  
 ——— *paulseni*. Sars. 122.
- DICHELASPIS** [Cirripedia].  
 ——— *aurivillii*. Gruvel. 46.  
 ——— *coutierei*. Gruvel. 46.  
 ——— *equina*. Lanchester. 82.  
 ——— *lepadiformis*. Gruvel. 46.  
 ——— *maindroni*. Gruvel. 46.  
 ——— *mülleri*. Coker. 20.  
 ——— *occlusa*. Lanchester. 82.  
 ——— *vallanti*. Gruvel. 46.
- DIOGENES** [Decapoda].  
 ——— *desipiens*. Lanchester. 82.  
 ——— *mixtus*. Lanchester. 82.
- DODECAS** [Amphipoda].  
 ——— *hexacentrum*. Mayer. 97.
- DOLEROCYPRIS** [Ostracoda].  
 ——— *sinensis*. Sars. 121.
- DOROPONTIUS** n. gen. [Copepoda]. Thompson and Scott. 150.  
 ——— *denticornis*. Thompson and Scott. 150.
- DROMIDES** n. gen. [Decapoda]. Borradaile. 10.
- DROMIDIOPSIS** [Decapoda].  
 ——— *australensis* var. *bidens* n. var. Borradaile. 12.  
 ——— *tridentatus*. Borradaile. 12.
- DUNHEVIDIA** [Phyllopoda].  
 ——— *neglecta*. Daday, von. 25.
- ERALIA** [Decapoda].  
 ——— *maldivensis*. Borradaile. 12.
- ECTINOSOMA** [Copepoda].  
 ——— *antarcticum*. Giesbrecht. 41.  
 ——— *finmarchicum*. Scott. 104.
- ELASMOPUS** [Amphipoda].  
 ——— *sokotrae*. Walker and Scott. 116.
- ENHYDROSMA** [Copepoda].  
 ——— *gracile*. Scott. 131.  
 ——— *minutum*. Scott. 131.
- Entocythere** n. gen. [Ostracoda].  
 ——— Marshall. 96a.  
 ——— *cambaria*. Marshall. 96a.
- ENTOMIS** [Ostracoda].  
 ——— *prosephina*†. Loomis. 93.
- Entophtlus** n. gen. [Isopoda]. Richardson. 117.  
 ——— *omnitectus*. Richardson. 117.
- EPIMERIA** [Amphipoda].  
 ——— *inermis*. Walker. 159.
- ERYONICUS** [Decapoda].  
 ——— *puritanii*. Lo Bianco. 89.
- ESTHERIA** [Phyllopoda].  
 ——— *sarsi*. Sayce. 124.
- EUCANDONA** [Ostracoda].  
 ——— *stummeri*. Daday. 26.
- EUCHAETA** [Copepoda].  
 ——— *antarctica*. Giesbrecht. 41.  
 ——— *austrina*. Giesbrecht. 41.  
 ——— *oceana*. Thompson. 148.
- EULIMNADIA** [Phyllopoda].  
 ——— *victoriensis*. Sayce. 124.
- EUSIRUS** [Amphipoda].  
 ——— *laevis*. Walker. 159.
- Euterpina** n. nom. [Copepoda]. Norman. 105.
- GAETANUS** [Copepoda].  
 ——— *kruppii*. Giesbrecht. 89.  
 ——— *major*. Wolfenden. 37.  
 ——— *pileatus*. Farran. 35a.
- GAIDIUS** [Copepoda].  
 ——— *boreale*. Wolfenden. 168. §
- GLYPHAEA** [Decapoda].  
 ——— *stokesi*†. Weller. 162.
- Halicyclops** n. nom. [Copepoda]. Norman. 105.
- HARPACTICUS** [Copepoda].  
 ——— *furcifer*. Giesbrecht. 41.
- Hemicypris** n. gen. [Ostracoda]. Sars. 121.  
 ——— *megalops*. Sars. 121.  
 ——— *ovata*. Sars. 121.
- Hemidiaptomus** n. gen. [Copepoda].  
 ——— Sars. 122.  
 ——— *ignatovi*. Sars. 122.
- HERMANELLA** [Copepoda].  
 ——— *finmarchia*. Scott. 104.  
 ——— *robusta*. Thompson and Scott. 150.  
 ——— *serendibica*. Thompson and Scott. 150.
- HERSILIODES** [Copepoda].  
 ——— *dubia*. Thompson and Scott. 150.  
 ——— *leggii*. Thompson and Scott. 150.  
 ——— *tamilensis*. Thompson and Scott. 150.

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- HETERORHARDUS** [Copepoda].  
 ——— *austrinus*. Giesbrecht. 41.
- HOPLOONYX** [Amphipoda].  
 ——— *stebbingi*. Walker. 159.
- HYALELLA** [Amphipoda].  
 ——— *fazoni*. Stebbing. 140.
- IDYA** [Copepoda].  
 ——— *racovitzai*. Giesbrecht. 41.  
 ——— *tenuimana*. Giesbrecht. 41.
- ILTOCYPRIS** [Ostracoda].  
 ——— *angulata*. Sars. 121.  
 ——— *dentifera*. Sars. 121.
- INGOLFIELLA** n. gen. [Amphipoda]. Han-  
 sen. 56.  
 ——— *abyssi*. Hansen. 56.  
 ——— *littoralis*. Hansen. 56.
- ISOCHAETA** [Copepoda].  
 ——— *longisetosus*. Thompson. 148.
- ISOCHILINA** [Ostracoda].  
 ——— *gregaria* var. *ulrichiana* n.  
 var.†. Jones. 67.
- JASSA** [Amphipoda].  
 ——— *goniamera*. Walker. 159.  
 ——— *marmorata*. Holmes. 66.
- KURIA** n. gen. [Amphipoda]. Pocock,  
 Walker and Scott. 116.  
 ——— *longimanus*. Pocock, Walker  
 and Scott. 116.
- LABIDOCERA** [Copepoda].  
 ——— *kroyeri* var. *stylifera* n. var.  
 Thompson and Scott. 150.  
 ——— ——— var. *gallensis* n.  
 var. Thompson and Scott.  
 150.  
 ——— *pectinata*. Thompson and  
 Scott. 150.
- LAOPHONTE** [Copepoda].  
 ——— *faroënsis*. Scott. 128.  
 ——— *gracilis*. Scott. 131.  
 ——— *hirsuta*. Thompson and  
 Scott. 150.
- Laophontella** n. gen. [Copepoda].  
 ——— Thompson and Scott. 150.  
 ——— *typica*. Thompson and Scott.  
 150.
- LEPAS** [Cirripedia].  
 ——— *hilli*. Gruvel. 46.  
 ——— ——— var. *californiensis*  
 n. var. Gruvel. 46.
- Lepeopsyllus** n. gen. [Copepoda].  
 ——— Thompson and Scott. 150.  
 ——— *ovalis*. Thompson and Scott.  
 150.  
 ——— *typicus*. Thompson and  
 Scott. 150.
- LEPIDOPA** [Decapoda].  
 ——— *deamae*. Benedict. 4.  
 ——— *mearnsi*. Benedict. 4.  
 ——— *richmondi*. Benedict. 4.  
 ——— *websteri*. Benedict. 4.
- Leptocypris** n. gen. [Ostracoda]. Sars.  
 121.  
 ——— *papyracea*. Sars. 121.
- LEPTOSTYLIS** [Cumacea].  
 ——— *brevicaudata*. Zimmer, C.  
 175.  
 ——— *dentifrons*. Zimmer. 175.  
 ——— *tricincta*. Zimmer. 175.
- LEUCOSILIA** [Decapoda].  
 ——— *malditensis*. Borradaile.  
 12.
- LEYDIGIA** [Phyllopoda].  
 ——— *propinqua*. Sars. 121.
- LICHOMOLGUS** [Copepoda].  
 ——— *buddhensis*. Thompson and  
 Scott. 150.  
 ——— *dentipes*. Thompson and  
 Scott. 150.  
 ——— *elegans*. Thompson and  
 Scott. 150.  
 ——— *gigas*. Thompson and Scott.  
 150.  
 ——— *lankensis*. Thompson and  
 Scott. 150.  
 ——— *simplex*. Thompson and  
 Scott. 150.
- Liphonobius** n. gen. [Copepoda (?)].  
 ——— Augener. 1a.  
 ——— *gephyreicola*. Augener. 1a.
- LUCICUTIA** [Copepoda].  
 ——— *magna*. Wolfenden. 37.
- LUONACIA** n. gen. [Amphipoda]. Mayer.  
 97.  
 ——— *incerta*. Mayer.
- LYSIANAX** [Amphipoda].  
 ——— *uodius*. Pocock, Walker and  
 Scott. 116.
- Lysianopsis** (?) n. gen. [Amphipoda].  
 ——— Holmes. 66.  
 ——— *alba*. Holmes. 66.
- MACROPHthalmus** [Decapoda].  
 ——— *latipes*. Borradaile. 12.

- MACROTHRIX** [Phyllopoda].  
 ——— *cornuta*. Daday. 26.
- MARAENOBOTUS** [Copepoda].  
 ——— *affinis*. Daday. 26.
- Medenophthalmus** n. gen. [Copepoda].  
 ——— *Lo Bianco*. 89.  
 ——— *minutus*. *Lo Bianco*. 89.
- MELITA** [Amphipoda].  
 ——— *parvimana*. Holmes. 66.
- METAPROTELLA** [Amphipoda].  
 ——— *africana*. Mayer. 97.
- Metaproteo** n. gen. [Amphipoda]. Mayer.  
 97.
- METRIDIA** [Copepoda].  
 ——— *gerlachei*. Giesbrecht. 41.
- MOINA** [Phyllopoda].  
 ——— *brevicornis*. Sars. 121.  
 ——— *microphthalma*. Sars. 122.
- MONOCULODES** [Amphipoda].  
 ——— *edwardi*. Holmes. 66.
- Monoliropus** n. gen. [Amphipoda].  
 ——— *Mayer*. 97.  
 ——— *agilis*. Mayer. 97.
- MONSTRILLA** [Copepoda].  
 ——— *conjunctiva*. Giesbrecht. 41.
- MORARIA** [Copepoda].  
 ——— *schmeilii*. Douwe, van. 31.
- MYRA** [Decapoda].  
 ——— *intermedia*. Borradaile. 12.
- § Mytilicola** n. gen. [Copepoda]. Steuer.  
 144.  
 ——— *intestinalis*. Steuer. 144.
- Neaxius** n. subgen. [Decapoda.] Borra-  
 daile. 11.
- NITOCRA** [Copepoda].  
 ——— *gracillimana*. Giesbrecht. 41.  
 ——— *paradoxa*. Daday. 26.
- Noculacia** n. gen. [Amphipoda]. Mayer.  
 97.  
 ——— *bogisa*. Mayer. 97.  
 ——— *bullata*. Mayer. 97.
- NOTODROMAS** [Ostracoda].  
 ——— *oculata*. Sars. 121.
- Obeisella** n. gen. [Copepoda]. Ride-  
 wood. 119.  
 ——— *lyonsiellae*. Ridewood. 119.
- OEDICEROS** [Amphipoda].  
 ——— *newnesi*. Walker. 159.
- OITHONA** [Copepoda].  
 ——— *frigida*. Giesbrecht. 41.
- ONCAEA** [Copepoda].  
 ——— *curvata*. Giesbrecht. 41.
- Oradareo** n. gen. [Amphipoda]. Walker.  
 159.  
 ——— *longimana*. Walker. 159.
- ORCHOMENELLA** [Amphipoda].  
 ——— *franklini*. Walker. 159.  
 ——— *pinguides*. Walker. 159.
- ORCHOMENOPSIS** [Amphipoda].  
 ——— *nodimanus*. Walker. 159.  
 ——— *rossi*. Walker. 159.
- Orthoprotella** n. gen. [Amphipoda].  
 Mayer. 97.
- Paedaridium** n. gen. [Amphipoda].  
 Mayer. 97.  
 ——— *miserum*. Mayer. 97.
- PALAEOMONETES** [Decapoda].  
 ——— *cubensis*. Hay. 60.  
 ——— *eigenmanni*. Hay. 60.
- Palaeomunida** n. gen. [Decapoda].  
 Lörenthey. 92.  
 ——— *defecta*.† Lörenthey. 92.
- PARACAPRELLA** [Amphipoda].  
 ——— *alata*. Mayer. 97.  
 ——— *crassa*. Mayer. 97.  
 ——— *simplex*. Mayer. 97.  
 ——— *tenuis*. Mayer. 97.
- PARADEUTELLA** [Amphipoda].  
 ——— *armata*. Mayer. 97.  
 ——— *laetis*. Mayer. 97.  
 ——— *serrata*. Mayer. 97.  
 ——— *spinosa*. Mayer. 97.
- Paralichomolgus** n. gen. [Copepoda].  
 Thompson and Scott.  
 150.  
 ——— *curticaudatus*. Thompson  
 and Scott. 150.  
 ——— *longicaudatus*. Thompson  
 and Scott. 150.
- Parambasia** n. gen. [Amphipoda]. Po-  
 cock, Walker and Scott.  
 116.  
 ——— *forbesii*. Pocock, Walker  
 and Scott. 116.
- Paranthesius** n. gen. [Copepoda]. Scott.  
 131.  
 ——— *dubius*. Scott. 131.
- PARAPHOXUS** [Amphipoda].  
 ——— *spinousus*. Holmes. 66.
- Paraprotella** n. gen. [Amphipoda].  
 Mayer. 97.  
 ——— *prima*. Mayer. 97.  
 ——— *secunda*. Mayer. 97.
- Paraproteo** n. gen. [Amphipoda]. Mayer.  
 97.

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- Parartemia** n. gen. [Phyllopoda]. Sayce. 124.  
 ——— *zietziana*. Sayce. 124.
- Parastenhella** n. gen. [Copepoda]. Thompson and Scott. 150.  
 ——— *hornelli*. Thompson and Scott. 150.  
 ——— *similis*. Thompson and Scott. 150.
- PELITIDIUM** [Copepoda].  
 ——— *angulatum*. Thompson and Scott. 150.  
 ——— *ovale*. Thompson and Scott. 150.  
 ——— *perplexum*. Thompson and Scott. 150.  
 ——— *serratum*. Thompson and Scott. 150.  
 ——— *speciosum*. Thompson and Scott. 150.
- PHILOSOCIA** [Isopoda].  
 ——— *incurva*. Budde-Lund. 82.  
 ——— *truncatella*. Budde-Lund. 82.
- PHLYCTENODES** [Decapoda].  
 ——— *steinmanni*. Lörenthey. 92.
- Phyllothyreus** n. nom. [Copepoda]. Norman. 105.
- PHYSOCTIPRIA** [Ostracoda].  
 ——— *kraepelini*. Müller. 105.
- PINNOTHERES** [Decapoda].  
 ——— *tenuipes*. Borradaile. 12.
- Piperella** n. gen. [Amphipoda]. Mayer. 97.  
 ——— *grata*. Mayer. 97.
- PLATYLEPAS** [Cirripedia].  
 ——— *ophiophilus*. Lanchester. 82.
- PLESIONIKA** [Decapoda].  
 ——— *capreensis*. Lo Bianco. 89.  
 ——— *collei*. Pfeffer. 78.
- PONTELLA** [Copepoda].  
 ——— *danae* var. *ceylonica* n. var. Thompson and Scott. 150.
- PONTELLOPSIS** [Copepoda].  
 ——— *herdmani*. Thompson and Scott. 150.
- PORCELLIDIUM** [Copepoda].  
 ——— *acuticaudatum*. Thompson and Scott. 150.  
 ——— *brevicaudatum*. Thompson and Scott. 150.
- POTAMOCTPRIS** [Ostracoda].  
 ——— *almasyi*. Daday. 26.
- POTAMON** [Decapoda].  
 ——— *scorssaei*. Marchand. 96.  
 ——— *latidactylum*. Man de. 95.
- Prellicana** n. gen. [Amphipoda]. Mayer. 97.  
 ——— *minima*. Mayer. 97.
- Prodajus** n. gen. [Isopoda]. Bonnier. 89.  
 ——— *lo biancoi*. Bonnier. 9, 89.
- Proltropus** n. gen. [Amphipoda]. Mayer. 97.  
 ——— *dubius*. Mayer. 97.
- Propodalirius** n. gen. [Amphipoda]. Mayer. 97.  
 ——— *insolitus*. Mayer. 97.
- PROTELLA** [Amphipoda].  
 ——— *similis*. Mayer. 97.
- PROTO** [Amphipoda].  
 ——— *antillensis*. Mayer. 97.
- Protogeton** n. gen. [Amphipoda]. Mayer. 97.  
 ——— *incertus*. Mayer. 97.  
 ——— *inflatus*. Mayer. 97.
- Protomima** n. gen. [Amphipoda]. Mayer. 97.  
 ——— *denticulata*. Mayer. 97.  
 ——— *imitatrix*. Mayer. 97.
- Protoplesius** n. gen. [Amphipoda]. Mayer. 97.  
 ——— *enigma*. Mayer. 97.  
 ——— *fallax*. Mayer. 97.
- Pseudactideus** n. gen. [Copepoda]. Wolfenden. 168.  
 ——— *multiserrata*. Wolfenden. 168.
- PSEUDANTHESSIS** [Copepoda].  
 ——— *chelifer*. Thompson and Scott. 150.  
 ——— *concinus*. Thompson and Scott. 150.  
 ——— *gracilis*. Thompson and Scott. 150.  
 ——— *ieverai*. Thompson and Scott. 150.  
 ——— *maximus*. Thompson and Scott. 150.
- Pseudolenon** n. gen. [Cumacea]. Zimmer. 175.  
 ——— *sorex*. Zimmer. 175.
- Pseudoproto** n. gen. [Amphipoda]. Mayer. 97.  
 ——— *fallax*. Mayer. 97.

- PSEUDOTACHIDIUS** [Copepoda].  
 ——— *sinilis*. Scott. 128.
- PYRGOMA** [Cirripedia].  
 ——— *madreporae*. Borradaile. 12.
- RACOVITZANUS** n. gen. [Copepoda]. Giesbrecht. 41.  
 ——— *antarcticus*. Giesbrecht. 41.
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 ——— *bittneri*†. Lörenthey. 92.
- RHINCALANUS** [Copepoda].  
 ——— *grandis*. Giesbrecht. 41.
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- RICHARDINA** [Decapoda].  
 ——— *fredericii*. Lo Bianco. 89.
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 ——— *typica*. Thompson and Scott. 150.
- ROCINELA** [Isopoda].  
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 ——— *mundana*. Lanchester. 82.
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 ——— *patagonicum*. Gruvel. 46.  
 ——— *renai*. Gruvel. 46.  
 ——— *salartiae*. Gruvel. 46.
- SCAPHOLEBERIS** [Phyllopora].  
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 ——— *kingi*. Sars. 121.
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 ——— *chelifer*. Thompson. 148.  
 ——— *glacialis*. Giesbrecht. 41.
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 ——— *stylifer*. Giesbrecht. 41.
- SEIWYNIA** n. gen. [Decapoda]. Borradaile. 12.  
 ——— *laevis*. Borradaile. 12.
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 ——— *challengeri*. Hansen. 54.  
 ——— *inermis*. Hansen. 57.  
 ——— *similis*. Hansen. 54.
- SILVESTRIA** n. nom. [Copepoda]. Brian. 15.
- SIMOCEPHALUS** [Phyllopora].  
 ——— *mixtus*. Sars. 122.  
 ——— *productus*. Sars. 122.
- SIMOSA** n. nom. [Phyllopora]. Norman. 105.
- SPHAEROMA** [Isopoda].  
 ——— *felix*. Lanchester. 82.  
 ——— *gratii*. Walker and Scott. 116.
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 ——— *griescens*. Budde-Lund. 82.
- SPIROCYPRIS** n. gen. [Ostracoda]. Sharpe. 135.  
 ——— *passaica*. Sharpe. 135.
- STEGOPHRYXSUS** [Isopoda]. Thompson. 153.  
 ——— *hyptius*. Thompson. 153.
- STENHELIA** [Copepoda].  
 ——— *brevicornis*. Thompson and Scott. 150.  
 ——— *dentipes*. Thompson and Scott. 150.  
 ——— *gracilicaudata*. Thompson and Scott. 150.  
 ——— *hyperborea*. Scott. 104.  
 ——— *knozi*. Thompson and Scott. 150.  
 ——— *longicornis*. Thompson and Scott. 150.  
 ——— *minuta*. Thompson and Scott. 150.  
 ——— *perplexa*. Thompson and Scott. 150.
- STENOTHOE** [Amphipoda].  
 ——— *cyprina*. Holmes. 66.  
 ——— *minuta*. Holmes. 66.
- STEPHOPONTIUS** n. gen. [Copepoda].  
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 ——— *typicus*. Thompson and Scott. 150.
- STEPHUS** [Copepoda].  
 ——— *longipes*. Giesbrecht. 41.
- SUNARISTES** [Copepoda].  
 ——— *curticaudata*. Thompson and Scott. 150.  
 ——— *inopinata*. Thompson and Scott. 150.  
 ——— *longipes*. Thompson and Scott. 150.
- TALORCHESTIA** [Amphipoda].  
 ——— *fritzi*. Stebbing. 140.
- Tegastes** n. nom. [Copepoda]. Norman. 105.  
 ——— *chalmersi*. Thompson and Scott. 150.  
 ——— *donnani*. Thompson and Scott. 150.  
 ——— *imthurni*. Thompson and Scott. 150.  
 ——— *twynami*. Thompson and Scott. 150.

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Lörenthey. 92.

——— *laevis*†. Lörenthey. 92.**TETRAGONICEPS** [Copepoda].——— *dubia*. Thompson and  
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——— *solitaria*. Mayer. 97.**TRICHONISCUS** [Isopoda].——— *antennatus*. Budde-Land. 82.**Triliropus** n. gen. [Amphipoda]. Mayer.

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——— *uncinatus*. Mayer. 97.**Triperopus** n. gen. [Amphipoda]. Mayer.

97.

——— *mirus*. Mayer. 97.**TRITELLA** [Amphipoda].——— *laevis*. Mayer. 97.——— *ornata*. Mayer. 97.**Trypetesa** n. nom. [Cirripedia]. Norman.

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**TRYPHOSA** [Amphipoda].——— *adarei*. Walker. 159.——— *murrayi*. Walker. 159.**Ventriculina** n. gen. [Copepoda]. Bas-

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——— *crosslandi*. Bassett-Smith.

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**Wlassicisia** n. gen. [Phyllopoda]. Daday,

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——— *paannonica*. Daday, von. 25.**XANTHOCALANUS** [Copepoda].——— *giesbrechti*. Thompson. 148.**Zonophryxus** n. gen. [Isopoda]. Richard-

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——— *retrodens*. Richardson. 117.





2803-2831.

TRILOBITA.  
XIPHOSURA.  
EURYPTERIDA.

PANTOPODA.  
TARDIGRADA.  
LINGUATULIDA.

## TITLES.

**Baldwin, Walter.** *Bellinurus bellulus*, from Sparth, Rochdale. Manchester, Trans. Geol. Soc., **23**, 1903, (198-202). [2827 de 2831]. 1

**Botzart, Eugen.** Ueber Tardigraden [*Milnesium alpigenum* u. *M. tardigradum*]. Verh. Ges. D. Natf., Leipzig, **74**, (1902), II, 1, 1903, (166). [2831]. 2

**Carpenter, G. H.** On the relationships between the classes of the Arthropoda. Dublin, Proc. R. Irish Acad. **24**, Sect. B, pt. 4, 1903, (320-360, pl. VI, 5 figs. in text); [abstract], London, J. R. Microsc. Soc., **1904**, (178). [0231 0207 2431 3007 2807 2831]. 3

**Drevermann, F.** Die Fauna der oberdevonischen Tuffbreccie von Langenau-bach bei Haiger. Berlin, Jahrb. geol. Landesanst., **21**, 1901, Abh. auss. St. Pers., (99-207, mit 5 Taf.). [0231 2031 2231 2831]. 4

**Fearnside, W. G.** On some new fossils from Penmorfa, and their bearing on the Cambro-Ordovician Succession near Tremadoc. London, Rep. Brit. Ass., **1902**, (614-615). [1027 de 2827 de]. 5

**Fritel, P. H.** Crustacés fossiles. Les Mérostromes. Naturaliste, Paris, (sér. 2), **24**, 1902, (221-224, av. fig.). [2831]. 6

**Gaskell, Walter H.** On the origin of Vertebrates deduced from the study of *Ammocoetes*. Part XI. London, J. Anat. Physiol., **17**, 1903, (168-219, 6 figs. in text). [0223 0207 3223 2807 5223 5431]. 7

**Gill, Leonard.** Trilobita in: Note on the occurrence of Keisley Limestone pebbles in the Red Sandstone Rocks of Peel (Isle of Man). London, Q. J. Geol. Soc., **59**, 1903, (308). [2027 de 1027 de 2227 de 2827 de 0827 de]. 8

**Hitchcock, Charles Henry.** Notice of a species of *Acidaspis* [*A. whitfieldi*, n. sp.] from a boulder of Marcellus shale, found in drift, at West Bloomfield, New Jersey. New York, N.Y., Bull. Amer. Mus. Nat. Hist., **19**, 1903, (97-98, with 1 pl.). [2827 gg 2831]. 9

**Katzer, Friedrich.** Grundzüge der Geologie des unteren Amazonasgebietes (des Staates Pará in Brasilien). Leipzig (M. Weg), 1903, (III + 298, mit 4 Portr., 1 Karte). 26 cm. 14 M. [1031 0227 hh 2031 2831]. 10

**Lamplugh, G. W.** Trilobita in: The Geology of the Isle of Man. Mem. geol. Surv. U. K., London, **1903**, (95, 258, with 5 pls. and figs. in text). 11

**Loeb, Leo.** On the blood, lymph cells, and inflammatory processes of *Limulus*. [With Bibliography]. J. Med. Res., Boston, Mass., **7**, 1902, (145-158). [2807 2831]. 12

**Norman, A. M.** Notes on the natural history of East Finmark. Podosomata. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (166). [2827 db 2831]. 13

**Reed, F. R. Cooper.** Woodwardian Museum Notes; On some Wenlock species of *Lichas*. Geol. Mag., London, [4], **10**, 1903, (2-12, pl. 1). [2831]. 14

**Reed, F. R. Cooper.** Woodwardian Museum Notes; *Brachymetopus strzeleckii* McCoy, 1847. Geol. Mag., London, [4], 10, 1903, (193-196, with 2 figs. in text.). [2831]. 15

— The Lower Palaeozoic Trilobites of the Girvan District, Ayrshire. Part I. London, Monogr. Palaeont. Soc., 57, 1903, (1-48, pls. I-VI). [2831]. 16

**Richters, F.** Nordische Tardigraden. Zool. Anz., Leipzig, 27, 1903, (168-172). [2831 2827 *kd*]. 17

— Pseudo-Parasiten an Bärthierchen. Prometheus, Berlin, 15, 1903, (44-45). [2819 2831]. 18

— Die Eier und Eiablage der Tardigraden. Verh. D. zool. Ges., Leipzig, 13, 1903, (53). [2815 2831]. 19

**Searle, Clifton J.** A new Eurypterid fauna from the base of the Salina of Western New York [with bibliography]. Thesis . . . M.S. . . . University of Rochester. Albany Univ., N.Y., Bull. St. Mus., No. 69, 1903, (1080-1108, with 21 pls.). [2827 *gg* 2831]. 20

**Spencer, W. K.** The hypostomic eyes of Trilobites. Geol. Mag., London, [4], 10, 1903, (489-492, 3 figs. in text). [2807 2607 2831]. 21

**Stebbing, T. R. R.** The Nobodies—a sea-faring family [Popular account of Pycnogonida, introducing some modifications of nomenclature] Knowledge, London, 25, 1902, (37-40, 73-76, 137-140, 185-189); 26, 1903, (14-17, 145-148, many figs. in text). [2803 2831]. 22

**Woodward, Henry.** On two Trilobites from the Devonian Slates of Cornwall, obtained by Walter Barrett, Esq. Geol. Mag., London, [4], 10, 1903, (28-31, 1 fig. in text). [2831]. 23

— Note on some fragmentary remains of fossils from the upper part of Mount Noyes (Canadian Rockies). Geol. Mag., London, [4], 10, 1903, (297-298, 3 figs. in text). [2831]. 24

## 2803 COMPREHENSIVE AND GENERAL WORKS.

**Stebbing, T. R. R.** The Nobodies—a sea-faring family [Popular account of Pycnogonida, introducing some modifica-

tions of nomenclature]. Knowledge, London, 25, 1902, (37-40, 73-76, 137-140, 185-189); 26, 1903, (14-17, 145-148, many figs. in text).

## 2807 STRUCTURE.

### COMPARATIVE ANATOMY.

**Carpenter, G. H.** On the relationships between the classes of the Arthropoda. Dublin, Proc. R. Irish Acad., 24, Sect. B, pt. 4, 1903, (320-360, pl. VI, 5 figs. in text); [abstract], London, J. R. Microsc. Soc., 1904, (178).

**Gaskell, Walter H.** On the origin of Vertebrates deduced from the study of *Ammocoetes*. Part XI. London, J. Anat. Physiol., 17, 1903, (168-219, 6 figs. in text).

### BLOOD, LYMPH.

**Loeb, Leo.** On the blood lymph cells and inflammatory processes of *Limulus*. [With bibliography]. J. Med. Res., Boston, Mass., 7, 1902, (145-158).

### SENSE ORGANS.

**Spencer, W. K.** The hypostomic eyes of Trilobites. Geol. Mag., London, [4], 10, 1903, (489-492, 3 figs. in text).

## 2815 DEVELOPMENT.

**Richters, [Ferdinand].** Die Eier und Eiablage der Tardigraden. Verh. D. zool. Ges., Leipzig, 13, 1903, (53).

## 2819 ETHOLOGY.

**Richters, Ferd.** Pseudo-Parasiten an Bärthierchen. Prometheus, Berlin, 15, 1903, (44-45).

## 2827 GEOGRAPHICAL DISTRIBUTION.

### d EUROPE.

### db RUSSIA IN EUROPE.

**Norman, A. M.** Podosomata in: Notes on the natural history of East Finmark (contd.). Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (166-173).

## de BRITISH ISLANDS.

**Baldwin, Walter.** *Bellinurus bellulus* from Sparth, Rochdale. Manchester, Trans. Geol. Soc., **36**, 1903, (198-202).

**Fearnside, W. G.** On some new fossils from Penmorfa, and their bearing on the Cambro-Ordovician Succession near Tremadoc. London, Rep. Brit. Ass., **1902**, (614-615).

**Gill, L.** Note on the occurrence of Keisley Limestone pebbles in the Red Sandstone Rocks of Peel (Isle of Man). London, Q. J. Geol. Soc., **59**, 1903, (307-310).

**Lamplugh, G. W.** Trilobita in: The Geology of the Isle of Man. Mem. Geol. Surv. U. K. London, **1903**, (95, 258).

## g NORTH AMERICA.

## gg NORTH EASTERN UNITED STATES.

**Hitchcock, [Charles] H[enry].** Notice of a species of *Acidaspis* [*A. whitfieldi*, n. sp.] from a boulder of Marcellus shale, found in drift, at West Bloomfield, New Jersey. New York, N.Y., Bull. Amer. Mus. Nat. Hist., **19**, 1903, (97-98, with 1 pl.). Separate. 24.5 c.m.

**Searle, Clifton J.** A new Eurypterid fauna from the base of the Salina of Western New York [with bibliography]. Thesis . . . M.S. . . . University of Rochester. Albany Univ., N.Y., Bull. St. Mus., No. **69**, 1903, (1080-1108, with 21 pls.).

## k ARCTIC.

## kd ISLANDS NORTH OF EUROPE AND ASIA.

**Richters, F.** Nordische Tardigraden. Zool. Anz., Leipzig, **27**, 1903, (168-172).

## 2831 TAXONOMY AND SYSTEMATIC.

## TRILOBITA.

## GENERAL.

**Carpenter, G. H.** On the relationships between the classes of the Arthropoda. Dublin, Proc. R. Irish Acad., **24**, 1903, (320-360).

**Reed, F. R. C.** The Lower Palaeozoic Trilobites of the Girvan District, Ayrshire. Part I. London, Monogr. Palaeont. Soc., **57**, 1903, (1-48, pls. I-VI).

**Spencer, W. K.** The "hypostomic eyes" of Trilobites. Geol. Mag., London, [4], **10**, 1903, (489-492, 3 figs. in text).

**Woodward, H.** Note on some fragmentary remains of fossils from the upper part of Mount Noyes (Canadian Rockies). l.c. (297-298, 3 figs. in text).

## SPECIAL.

*Acidaspis whitfieldi*† n. sp. New Jersey Devonian. **Hitchcock, C. H.** New York, N.Y., Bull. Amer. Mus. Nat. Hist., **19**, 1903, (97-98, with 1 pl.).

*Agnostus girvanensis*† n. sp. **Reed, F. R. C.** London, Monogr. Palaeont. Soc., **57**, 1903, (4-6).

*Ampyz drummuckensis*† n. sp. **Reed, F. R. C.** l.c. (18-19).

*Asaphus (Isotelus) instabilis*† n. sp. **Reed, F. R. C.** l.c. (46-48).

*Brachymetopus strzeleckii*† McCoy, Woodwardian Museum Notes. **Reed, F. R. C.** Geol. Mag., London, [4], **10**, 1903, (193-196, with 2 figs in text).

*Dionide richardsoni*† n. sp. **Reed, F. R. C.** London, Monogr. Palaeont. Soc., **57**, 1903, (26-28).

*Griffithides (Phillipsia) tapajotensis*† n. sp. Brazil. **Katzer, F.** Grundzüge der Geologie des unteren Amazonasgebietes (des Staates Pará in Brasilien). Leipzig (M. Weg), 1903, (III + 298).

*Homalonotus barratti*† n. sp. Devonian slates of Cornwall. **Woodward, H.** Geol. Mag., London, [4], **10**, 1903, (29-31, 1 fig. in text).

*Lichas*† some Wenlock species. **Reed, F. R. C.** l.c. (2-12, pl. I).

——— (*Corydocephalus*) *hirsutus* var. *tuberculatus*† n. var. **Reed, F. R. C.** l.c. (7-8, pl. I, fig. 6).

——— (*Dicranopeltis*) *woodwardi*† n. sp. **Reed, F. R. C.** l.c. (9-10, pl. I, figs. 7-8).

*Phacops*†, Devonian slates of Cornwall. **Woodward, H.** l.c. (31).

*Phacops*† nn. spp. Deutschland, Oberdevonien. **Drevermann**, F. Berlin, Jahrb. geol. Landesant., **21**, 1901, Abh. auss. St. Pers., (99-207).

*Proetus*† nn. spp. Deutschland, oberdevonisch. **Drevermann**, F. l.c. (99-207).

*Remopleurides*† nn. spp. **Reed**, F. R. C. London, Monogr. Palaeont. Soc., **57**, 1903, (33-39).

*Shumardia scotica*† n. sp. **Reed**, F. R. C. l.c. (42-43).

*Trinucleus subradiatus*† n. sp. **Reed**, F. R. C. l.c. (12-14).

## XIPHOSURA.

### GENERAL.

**Fritel**, P. H. Crustacés fossiles. Les Mérostomes. Naturaliste, Paris, (sér. 2), **24**, 1902, (221-224, av. fig.).

### SPECIAL.

*Bellinurus bellulus*, from Sparth, Rochdale. **Baldwin**, W. Manchester, Trans. Geol. Soc., **23**, 1903, (198-202).

*Limulus*, blood lymph cells. **Loeb**, L. J. Med. Res., Boston, Mass., **7**, 1902, (145-158).

## EURYPTERIDA.

### GENERAL.

**Searle**, C. J. A new Eurypterid fauna from the base of the Salina of Western New York [with bibliography]. Thesis . . . M.S. University of Rochester. Albany Univ., N.Y., Bull. St. Mus., No. **69**, 1903, (1080-1108, with 21 pls.).

### SPECIAL.

*Eurypterus pittsfordensis*† n. sp. New York, Silurian. **Searle**, C. J. Albany Univ., N.Y., Bull. St. Mus., No. **69**, 1903, (1080-1108).

*Hughmilleria*, n. gen., *H. socialis*† n. sp. var. *robusta*† n. var. New York, Silurian. **Searle**, C. J. l.c. (1080-1108).

*Pterygotus monroensis*†. New York, Silurian. **Searle**, C. J. l.c. (1080-1108).

## PANTOPODA.

**Norman**, A. M. [Podosomata in:] Notes on the natural history of East Finmark (contd.). Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (166).

**Stebbing**, T. R. R. The Nobodies—a sea-faring family [Popular account of Pycnogonida, introducing some modifications of nomenclature]. Knowledge, London, **25**, 1902, (37-40, 73-76, 137-140, 185-189); **26**, 1903, (14-17, 145-148, many figs. in text).

## TARDIGRADA.

### GENERAL.

**Richters**, Ferd. Pseudo-Parasiten an Bärthierchen. Prometheus, Berlin, **15**, 1903, (44-45).

—— Die Eier und Eiablage der Tardigraden. Verh. D. Zool. Ges., Leipzig, **13**, 1903, (53).

### SPECIAL.

*Diphaseon spitzbergense* n. sp. **Richters**, F. Zool. Anz., Leipzig, **27**, 1903, (168-172).

*Echiniscus* nn. spp. **Richters**, F. l.c. (168-172).

*Macrobiotus* nn. spp. **Richters**, F. l.c. (168-172).

*Milnesium alpigenum* und *M. tardigradum*. **Botosat**, E. Verh. Ges. D. Natf., Leipzig, **74**, (1902), II, 1, 1903, (166).

## LIST OF NEW GENERA AND SPECIES.

ACIDASPID [Trilobita].  
—— *whitfieldi*†. Hitchcock, C. H. 226.

AGNOSTUS [Trilobita].  
—— *girsanensis*†. Reed. 16.

AMPYX [Trilobita].  
—— *drummuckensis*†. Reed. 16.

ASAPHUS [Trilobita].  
—— *instabilis*†. Reed. 16.

DIONIDE [Trilobita].  
—— *richardsoni*†. Reed. 16.

DIPHASEON [Tardigrada].  
—— *spitzbergense*. Richters. 17.

## ECHINISCUS [Tardigrada].

- \_\_\_\_\_ *blumi*. Richters. 17.  
 \_\_\_\_\_ *oihonnae*. Richters. 17.  
 \_\_\_\_\_ *wendii*. Richters. 17.

## ECRYPTERUS [Eurypterida].

- \_\_\_\_\_ *pittsfordensis*†. Searle. 20.

## GRIFFITHIDES [Trilobita].

- \_\_\_\_\_ *tapajotensis*†. Katzer. 10.

## HOMALONOTUS [Trilobita].

- \_\_\_\_\_ *barratti*†. Woodward. 23.

**Hughmilleria** n. gen. [Eurypterida].

- \_\_\_\_\_ Searle. 20.  
 \_\_\_\_\_ *socialis*†. Searle. 20.  
 \_\_\_\_\_ var. *robusta*† n.  
                     var. Searle. 20.

## LICHAS [Trilobita].

- \_\_\_\_\_ *hirsutus* var. *tuberculatus*†  
                     Reed. 14.  
 \_\_\_\_\_ *woodwardi*†. Reed. 14.

## MACROBIOTUS [Tardigrada].

- \_\_\_\_\_ *coronifer*. Richters. 17.  
 \_\_\_\_\_ *echinogenitus*. Richters. 17.  
 \_\_\_\_\_ *granulatus*. Richters. 17.

## PHACOPS [Trilobita].

- \_\_\_\_\_ *brevisimus*†. Drevermann.  
                     4.  
 \_\_\_\_\_ *lotzi*†. Drevermann. 4.  
 \_\_\_\_\_ *miserrimus*†. Drevermann.  
                     4.  
 \_\_\_\_\_ *sulcatus*†. Drevermann. 4.

## PROETUS [Trilobita].

- \_\_\_\_\_ *carintiacus*†. Drevermann.  
                     4.  
 \_\_\_\_\_ *dillensis*†. Drevermann. 4.

## PTERYGOTUS [Eurypterida].

- \_\_\_\_\_ *monroensis*†. Searle. 20.

## REMOPLEURIDES [Trilobita].

- \_\_\_\_\_ *bicornis*†. Reed. 16.  
 \_\_\_\_\_ *correctus*†. Reed. 16.  
 \_\_\_\_\_ *salteri* var. *girvanensis*† n.  
                     var. Reed. 16.

## SHUMARDIA [Trilobita].

- \_\_\_\_\_ *scotica*†. Reed. 16.

## TRINUCLEUS [Trilobita].

- \_\_\_\_\_ *subradiatus*†. Reed. 16.



## 3003-3031 ARACHNIDA.

## TITLES.

**Anderson, John H.** Spotted fever (tick fever) of the Rocky Mountains. A new disease [caused by species of *Dermacentor*, probably *D. reticulatus*]. Appendix: A report of two cases . . . by Dr. G. A. Gates]. Washington, D.C., Treas. Dept., Pub. Hlth. Mar. Hosp. Serv., Hyg. Lab. Bull. No. 14, 1903, (50). 23 cm. [3027 *gi* 3031]. 1

**Bachmann, [Franz Ewald].** Tödliche Verletzungen durch südafrikanische Skorpione. Verh. Ges. D. Natf., Leipzig, 73, (1901), II, 2, 1902, (584-587). [3019 3031]. 2

**Banks, Nathan.** A list of Arachnida from Hayti, with descriptions of new species. Philadelphia, Pa., Proc. Acad. Nat. Sci., 55, 1903, (340-345, with pl.). [3027 *hc* 3031]. 3

——— Daddy-long-legs from Mt. Katahdin, Maine. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (308-309). [3027 *gg* 3031]. 4

——— A new genus of Solpugida [*Hemerotrecha californica* n. gen. et sp. from California]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (78-79, with text fig.). [3027 *gi* 3031]. 5

——— Secondary sexual characters in spiders. Washington, D.C., Proc. Ent. Soc., 5, 1903, (104-107). [3007 3031]. 6

**Berlese, Antonio.** Diagnosi di alcune nuove specie di Acari italiani, mirmecofili e liberi. Zool. Anz., Leipzig, 27, 1903, (12-23). [3031]. 7

(N 2-9053)

**Bioletti, F. T. and Twight, E. H.** Erinose of the vine. [*Phytoptus vitis*]. Agric. Exp. Sta., California, Berkeley, Bull. No. 136, 1901, (7, with 5 figs.). 23 cm. [Review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., 13, 1902, (768). [3003 3031]. 8

**Birulia, A. A.** Beiträge zur Kenntnis der Skorpionenfauna Ostpersiens (II Beitrag). St. Petersburg, Bull. Ac. Sc., (5 F), 19, No. 2, 1903, (67-80). [3027 3031]. 9

——— Bemerkungen über einige neue oder wenig bekannte Skorpionenformen Nord-Afrikas. St. Petersburg, Bull. Ac. Sc., (5 F), 19, No. 3, 1903, (105-113). [3027 3031]. 10

——— Sur une nouvelle espèce de scorpion, provenant de Madagascar. (Russ.) St. Petersburg, Ann. Mus. Zool. Ac. Sc., 8, 1903, (X-XI). [3031 3027 *fh*]. 11

——— Note sur la distribution géographique de quelques scorpions du Caucase. (Russ.) St. Petersburg, Ann. Mus. zool. Ac. Sc., 8, 1903, (XVII-XIX). [3027 *db* 3031]. 12

**Bösenberg, W.** Die Spinnen Deutschlands, V. Zoologica, Stuttgart, Heft 35v (= Bd 14, Lfg 5/6), 1903, (I-V, 385-465, mit 7 Taf.). [3027 *dc* 3031]. 13

**Bonnet, A.** Sur le développement post-embryonnaire des Ixodes. Paris, C. R. Acad. sci., 137, 1903, (419-420). [3015 3031]. 14

**Brandes, G[ustav].** Einiges über die Bibermilbe. Zs. Natw., Stuttgart, 76, 1903, (144). [3031]. 15



**Brébion.** Résistance vitale d'un scorpion. Chalon-sur-Saône, Bul. soc. sci. nat., (n. sér., 9), 29, 1903, (130). [3019 3031]. 16

**Cambridge, F. O. [Pickard].** On some new species of spiders belonging to the families *Pisauridae* and *Senoculidae*; with characters of a new genus. London, Proc. Zool. Soc., 1903, 1, (151-168, pls. XIV-XV). [3031]. 17

— A revision of the genera of the Araneae or spiders, with reference to their type species. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (32-51); 12, 1903, (481-495). [3031]. 18

— On some secondary sexual characters in the genus *Aranea* Linn. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (59-60, with 1 text fig.). [3007 3031]. 19

— Arachnida Araneida II. Biol.-Centr.-Amer., London, 1903, (425-440, pls. XL-XLI, 441-448, pl. XLII, 449-464, XLIII-XLIV). [3007 3027 hb 3031]. 21

— List of the *Araneidae* or spiders of the Channel Islands. Rep. Guernsey Soc. Nat. Sci., 1902, (1903), (141-144). [3027 de 3031]. 22

— Arachnida, in "Three weeks in South Kerry, June, 1902." Irish Nat., Dublin, 12, 1903, (69). [3027 de]. 23

— On new and rare British spiders. Dorchester, Proc. Dorset Nat. Hist. F. Cl., 24, 1903, (149-171, pl. a). [3027 de 3031]. 24

**Carpenter, G. H.** On the relationships between the classes of the Arthropoda. Dublin, Proc. R. Irish Acad., 24, Sect. B, Pt. 4, 1903, (320-360, pl. VI, 5 text-figs.); [abstract], London, J. R. Microsc. Soc., 1904, (178). [0231 0207 2431 2807 2831 3007]. 25

**Daday, E[ugen] von.** Die Eylaisarten Ungarns. Math.-natw. Ber. Ungarn, Leipzig, 18, (1900), 1903, (341-364). [3031 3027 dk]. 26

— Mikroskopische Süsswasserthiere aus Turkestan. (Hung.) Math. Term. Ért., Budapest, 21, 1903. [0227 ei 1431 2631 3031]. 27

**Dahl, Friedr.** Ueber abgebrochene Copulationsorgane männlicher Spinnen im Körper der Weibchen. Berlin, Sitz-Ber. Ges. natf. Freunde, 1902, (36-45). [3019 3031]. 28

— Ueber Stufenfänge echter Spinnen am Riesengebirge. (Eine vergleichend ethologische Studie). Berlin, Sitz-Ber. Ges. natf. Freunde, 1902, (185-203, mit Tab.). [3027 de 3019 3031]. 29

— Berichtigungen zu dem Vortrag über Stufenfänge echter Spinnen am Riesengebirge. Berlin, Sitz-Ber. Ges. natf. Freunde, 1903, (183-184). [3027 de 3019 3031]. 30

— Täuschende Ähnlichkeit zwischen einer deutschen Springspinne (*Ballus depressus*) und einem am gleichen Orte vorkommenden Rüsselkäfer (*Strophosomus capitatus*). Berlin, Sitz-Ber. Ges. natf. Freunde, 1903, (273-278). [3031 3019 4819 4831]. 31

— Eine eigenartige Metamorphose der Troguliden, eine Verwandlung von *Amopaum* in *Dicranolasma* und von *Metopoeia* in *Trogulus*. Berlin, Sitz-Ber. Ges. natf. Freunde, 1903, (278-292). [3015 3031]. 32

— Wird der Skorpion durch seinen Stich dem Menschen gefährlich? Natw. Wochenschr., Jena, 19, 1903, (97-99). [3031 3019]. 33

**Davydov, K. N.** Les résultats du voyage scientifique au Java et les autres îles de l'Archipel Malais. I. Sur les organes excréteurs et la phagocytose éliminatrice chez le *Telyphonus* de Java. (Comm. prélim.) St. Peterburg, Bull. Ac. Sc., (5 Sér.), 18, No. 5, 1903, (201-206). [3007 3011 3031]. 34

**Dementjew, A. M.** Neue Pflanzenparasiten, welche die Chlorose der Weinrebe verursachen. Zs. Pflanzenkrankh., Stuttgart, 13, 1903, (65-82). [3019 3031]. 35

**Deventer, W. van.** Insekteneier, welche oft auf Zuckerrohr angetroffen werden. (Holländisch) Arch. Java Suiker., Soerabaia, 19, 1903, (437-446, 2 Taf.). [2419 2431 3031 3019]. 36

**Ellingsen, Edv.** Pseudoscorpiones found in Norway I. (Norw.) Kristiania, Forh. Vid. Selsk., 1903, No. 5, (18). [3027 da 3031]. 37

- Evans, W.** *Chelifer (Chernes) tullgreni* Strand, in Scotland. Ann. Scot. Nat. Hist., Edinburgh, **1903**, (120, 249). [3031 3027 *de*]. 38
- Fabre, J. H.** Exode des araignées. Louvain (Imprimerie Polleunis et Centrick), 1903, (25). 8vo. 1 fr. [3019 3031]. 39
- Favler, abbé C.** Observation à propos d'une araignée de Madagascar. Paris, Ann. Soc. ent., **71**, 1902, (488-498, av. pl.). [3019 3031]. 40
- George, C. F.** Lincolnshire freshwater mites. Naturalist, London, **1903**, (83, 84, 5 figs., 111, 112, 8 figs., 215-216, 252, 3 figs., 304, 2 figs., 421, 422, 5 figs.). [3027 *de* 3031]. 41
- Godfrey.** Ichneumon parasitic on *Obisium*. Ann. Scot. Nat. Hist., Edinburgh, **1903**, (247). [3019]. 42
- Halbert, J. N.** Notes on Irish species of *Eylais*. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (505-515, with 10 figs.). [3027 *de* 3031]. 43
- Notes on Irish freshwater mites. Zool. Anz., Leipzig, **26**, 1903, (265-272). [3031 3027 *de*]. 44
- Hansen, H. J.** On six species of *Koenenia*, with remarks on the order Palpigradi. Entomol. Tidskr., Stockholm, **22**, 1901, (193-240, with pl.). [3007 3031]. 45
- Hanstein, R. von.** Ueber *Bryobia ribis* Thomas. Berlin, SitzBer. Ges. natf. Freunde, **1902**, (128-136). [3031]. 46
- Heller, Eugen.** Die Opilioniden Württembergs. Insektenbörse, Leipzig, **20**, 1903, (379-380, 394-395, 405, 411-412). [3027 *de* 3031]. 47
- Hickman, R. W.** Scabies in cattle [caused by *Psoroptes*]. Washington, D.C., U. S. Dept. Agric. Rep. Bur. Anim. Indust., **1902**, 1903, (45-61, with pl.). [3031 3019]. 48
- Hineck, G.** Deperimento delle viti per causa di un acaro (*Coepophagus echinopus*). Bollettino di Entomologia agraria, Padova, **9**, 1902, (33-35). [0060 3019 3031]. 49
- Hogg, H. R.** On the Australasian spiders of the Subfamily *Sparassinae*. London, Proc. Zool. Soc., **1902**, 2, 1903, (414-466, 20 text-figs.). [3027 *ic* 3031]. 50
- Hogg, H. R.** Two new Australian spiders of the family *Ctenisidae*. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (308-312). [3027 *ic* 3031]. 51
- Howlett, W. F.** [Note on copulation in a "water-mite."]. Zoologist, London, (Ser. 4), **7**, 1903, (355). [3019 3031]. 52
- Hutchinson, Charles E.** A bolasthrowing spider [*Ordgarius cornigerus*]. Sci. Amer., New York, N.Y., **89**, 1903, (172). [3019 3031]. 53
- Istvánfi, Gyula.** Das gemeinsame Auftreten der Pilze, *Ithyphallus* und der Milbe, *Coepophagus* in Ungarn. (Hung.) Math. Term. Ért., Budapest, **21**, 1903, (157-176). [3031 3027 *dk*]. 54
- Jacot, [E.]** Etude sur les arachnides. Fragment d'entomologie. Messenger Suisse Rom., Fribourg, **16**, 1903, (45, 54, 68-69). [3003 3031]. 55
- Joersch, [Karl Ernst Johann].** *Demodex s. Acarus folliculorum* und seine Beziehung zur Lidrandentzündung. Giessen, Ber. Ges. Natk., **33**, 1899-1902, (113-115). [3019 3031]. 56
- Kew, H. Wallis.** North of England Pseudoscorpions. Naturalist, London, **1903**, (293-300, 2 text-figs.). [3027 *de* 3031]. 57
- Snails and spiders on towers. Naturalist, London, **1903**, (342-343). [2219 3019]. 58
- Koenike, F.** Vier unbekannte norddeutsche Hydrachniden. (Vorläuf. Mitt.) Zool. Anz., Leipzig, **26**, 1903, (534-536). [3031]. 59
- Kossel, [Hermann], Schütz, [Johann Wilhelm], Weber, [August], Meissner, [Hermann].** Ueber die Hämoglobulinurie der Rinder in Deutschland. Berlin, Arb. Gesundheitsamt, **20**, 1903, (1-77, mit 3 Taf.). [0419 0431 3019 3031]. 60
- Kraepelin, [Karl].** Scorpione und Solifugen Nordost-Afrikas, gesammelt 1900 und 1902 von Carlo Freiherrn von Erlanger und Oscar Neumann. Zool. Jahrb., Jena, Abt. f. Syst., **18**, 1903, (557-578). [3027 *fb* 3031]. 61
- Küster, Ernst.** Cecidiologische Notizen 2. Ueber zwei einheimische Milbengallen: *Eriophyes diversipunctatus* u. *E. frazmicola*. Flora, Marburg, **92**, 1903, (380-395). [3031]. 62

**Kulczyński**, VI[adislau, Władysław]. Araneorum et Opilionum species in insula Creta a Comite Dre Carolo Attems collectae. Kraków, Bull. Intern. Acad., 1903, (32-58, with 1 pl.). [3031 3027 dm]. 63

**Kulwiec**, Kazimierz. Parasites des insectes. (Polonais) Wzschświat, Warszawa, 22, 1903, (213-217, 276-279). [4619 4819 1419 3019]. 64

**Largaioli**, Vittorio. Idracne del Trentino. Quarto contributo allo studio delle Idracne italiane [?]. Tridentum, Trient., 6, 1903, (132-136). [3027 dk 3031]. 65

**Laveran**, A. Au sujet du rôle des tiques dans la propagation des piroplasmoses. Paris, C.-R. soc. biol., 55, 1903, (61-63). [3019 3031]. 66

**Lewis**, R. T. On an undescribed species of *Chelifer*. London, J. Quek. Microsc. Cl., 8, 1903, (497-498, pl. XXV); [abstract], London, J. R. Microsc. Soc., 1904, (62). [3031]. 67

**Loman**, J. C. C. Vergleichend anatomische Untersuchungen an chilenischen und andern Opilioniden. Zool. Jahrb., Jena, Suppl. 6, 1903, (117-200, mit 4 Taf.). [3007 3031]. 68

On the classification of Opiliones. Helder, Tijdschr. Ned. Dierk. Ver., 8, 1903, (62-66). [3031]. 69

**Ludwig**, Friedrich. Warnung vor dem Polstermaterial „Crin d'Afrique“. Prometheus, Berlin, 15, 1903, (196-198). [3019]. 69a

**Mariani**, M. Di una nuova specie di acarò dell'ordine dei Metastigmata, gen. *Argas* (*Argas andresi*, n. sp.). Camerino (tip. Savini), 1902, (6). [3031]. 70

**Marshall**, Ruth. Ten species of *Arrenuri* belonging to the subgenus *Megalurus* Thon., with Bibliography. Madison, Trans. Wis. Acad. Sci., 14, 1902, [1903], (145-172, with pl.). [3031]. 71

**Marucci**, [V.]. Nota preliminare sugli Idracnidi del lago di Castel Gandolfo. Mon. zool. ital., Firenze, 13, 1902, (Supplemento), (35). [3027 dh 3031]. 72

**Maurizio**, A. Verunreinigung der Kraftfuttermittel durch Milben. Schweiz.

Landw. Zeitschr., Aarau, 30, 1902, (1001-1004, mit 2 Fig.). [3019 3031]. 73

**Mégnin**, [Pierre]. Rôle des tiques ou Ixodes dans la propagation des piroplasmoses. Paris, C.-R. soc. biol., 55, 1903, (4-6). [3019 3031]. 74

Un dernier mot sur le rôle des Ixodes [*Rhipicephalus*] dans la propagation des piroplasmoses. Paris, C.-R. soc. biol., 55, 1903, (147-149). [3019 3031]. 75

Encore un mot sur la biologie des Ixodes. Paris, C.-R. soc. biol., 55, 1903, (175-176). [3019 3031]. 76

**Melander**, Axel Leonard. Some additions to the Carboniferous terrestrial Arthropod fauna of Illinois. Chicago, Ill., J. Geol. Univ. Chic., 11, 1903, (178-198, with pl.). [2427 gg 3031 3831]. 77

**Michael**, Albert D. British Tyroglyphidae. Vol. ii. London (Ray Society), 1903, (VII and 183, pls. xx-xxxix). [3027 de 3015 3031]. 78

**Meissner**, [Hermann] v. Kossel, H.

**Montgomery**, Thomas H[arrison], jun. Studies on the habits of spiders, particularly those of the mating period [with bibliography]. Philadelphia, Pa., Proc. Acad. Nat. Sci., 55, 1903, (59-149, with pl.). [3019 3031]. 79

**Monti**, Rina. Ueber eine neue *Lebertia*-Art. [*L. paresii* n. sp.]. Zool. Anz., Leipzig, 26, 1903, (688-693). [3031]. 80

**Müller**, Herm. Hydrachniden. (Hamburgische Elb-Untersuchung.) Hamburg, Jahrb. wiss. Anst., 19, (1901), Beih. 2, 1903, (155-161). [3027 de 3031]. 81

**Neumann**, I. G. Note sur les Ixodidés. Arch. parasit., Paris, 6, 1902, (109-128, av. 6 fig.). [3019 3031]. 82

Note sur une collection d'ectoparasites recueillis en Abyssinie par M. le baron C. von Erlanger. Arch. parasit., Paris, 6, 1902, (293-294). [3019 4019 4219]. 83

**Nordenakiöld**, Erik. Ueber F. D. Wasastjernas „Monographia Acarorum“. Helsingfors, Comptes rendus du Congrès des Naturalistes et Médecins du Nord tenu à Helsingfors du 7 au 12 juillet 1902, 1903, VI Section, (2-4). [3031]. 84

**Nosek, Antonin.** Verzeichnisse der Pseudoscorpioniden. (Böhmisch) Prossnitz, Věstn. kl. Pfirod., 1901, (43). [3031]. 85

——— Schlüssel zur Bestimmung der Spinnengattungen Mitteleuropas. (Böhmisch) Prossnitz, Věstn. kl. Pfirod., 1903, (54, mit 2 Taf.). [3031]. 86

——— Übersicht der Pseudoscorpioniden und deren geographische Verbreitung. (Böhmisch) Progr. Gymn. Časlav, 1901, (28). [3027 dk 3031]. 87

**Oudemans, A[ntonie] C[ornelis].** Notes on Acari, fifth series. 's Gravenhage, Tijdschr. Ent., 45, 1903, (123–150, with 3 pl.). [3031]. 88

——— Notes on Acari, sixth series. 's Gravenhage, Tijdschr. Ent., 46, [1903], (1–24, with 3 pl.). [3031]. 89

——— Notes on Acari, 7th series. Helder, Tijdschr. Ned. Dierk. Ver., 8, 1903, (17–34, with 4 pls.). [3031]. 90

——— Notes on Acari, 8th series. Helder, Tijdschr. Ned. Dierk. Ver., (Ser. 2), 8, [1903], (70–92, with 2 pls.). [3031]. 91

——— Symbiose von *Coptorthosoma* und *Greenia*. Eine Prioritätsfrage. Zool. Anz., Leipzig, 27, 1903, (137–139). [4631 4619 3031 3019]. 92

**Pappenheim, Paul.** Beiträge zur Kenntnis der Entwicklungsgeschichte von *Dolomedes fimbriatus* Clerck, mit besonderer Berücksichtigung der Bildung des Gehirns und der Augen. Zs. wiss. Zool., Leipzig, 74, 1903, (109–154, mit 2 Taf.). [3015 3031]. 93

**Patterson, Alice Jean.** The spinner family . . . With drawings in the text by Bruce Horsfall. Chicago (A. C. McClury & Co.), 1903, (XI + 15–159, with illustr.). 20 cm. [3003 3031]. 94

**Peckham, Elizabeth G[ifford] v. Peckham, George W[illiams].**

**Peckham, George W[illiams] and Peckham, Elizabeth G[ifford].** New species of the family *Attidae* from South Africa, with notes on the distribution of the genera found in the Ethiopian region. Madison, Trans. Wis. Acad. Sci., 14, 1902, [1903]. (173–278, with pl.). [3027 fg 3031]. 95

**Pierzig, Richard.** Neues Verzeichnis der bisher im sächsischen Erzgebirge

aufgefundenen Hydrachniden-Formen. Annaberg, Ber. Ver. Natk., 11, (1898–1903), 1903, (34–46, mit 2 Taf.). [3027 dc 3031]. 96

**Poocock, R. I.** On a new species of marine spider of the genus *Desis* from Zanzibar. London, Proc. Zool. Soc., 1902, 2, 1903, (389–392, 1 text-fig.). [3027 ff 3031]. 97

——— On some new harvest-spiders of the order Opiliones from the Southern Continents. London, Proc. Zool. Soc., 1902, 2, 1903, (392–413, with 6 text-figs.). [3027 ff fg fh ih 3031]. 98

——— On the geographical distribution of spiders of the order Mygalomorphae. [Also on distrib. of some Arachnomorphae.] London, Proc. Zool. Soc., 1903, 1, (340–368, with 4 text-figs.). [3027 3031]. 99

——— On some genera and species of South American *Aviculariidae*. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (81–115). [3027 h 3031]. 100

——— Some Arachnida collected by Mr. G. W. Bury in Yemen. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (214–220, with 2 text-figs.). [3027 ee 3031]. 101

——— Descriptions of four new Arachnida of the orders Pedipalpi, Solifugae, and Araneae. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (220–226, with 1 text-fig.). [3027 df fh hf 3031]. 102

——— Some new spiders from the Cameroons collected by Mr. G. L. Bates. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (258–264). [3027 fd 3031]. 103

——— Fifteen new species and two new genera of Tropical and Southern Opiliones. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (433–450, pls. XI–XII). [3027 3031]. 104

——— The systematic position of the genus *Hadrotarsus* Thorell. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (619–621, 4 text-figs.). [3007 3031]. 105

——— A new Carboniferous Arachnid. Geol. Mag., London, [4], 10, 1903, (247–251, 2 text-figs.). [3007 3031]. 106

**Pocock, R. I.** Further remarks upon the Carboniferous Arachnid *Anthracosiro* with the description of a second species of the genus. *Geol. Mag.*, London, [4], 10, 1903, (405-408, 1 text-fig.). [3031]. 107

Notes on the commensalism subsisting between a gregarious spider *Stegodyphus* sp., and the moth *Batrachedra stegodyphobius* Wlsm. *Ent. Mag.*, London, 39, 1903, (167-170). [3019 3031 4419 4431]. 108

**Arachnida** In "The Natural History of Sokotra and Abd-el-Kuri." Edited by Henry O. Forbes. Special Bull. Liverp. Mus. 1903, (175-208, pl. XIV and pl. XXVI, fig. 1-4a, 2 text-figs.). [With notes by H. O. Forbes and W. R. Ogilvie Grant.] Quoted hereafter as Nat. Hist. Sokotra. [3003 3027 ff 3031]. 109

and **Rothschild, N. C.** On a new "Bird's-dung" spider from Ceylon. London, Proc. Zool. Soc., 1903, 1, (48-51, pl. X). [3015 3027 ef 3031]. 110

**Pollice, G.** Sui centri nervosi sottointestinali dell' *Euscorpium italicum*. Napoli, Boll. Soc. Nat., 15, (1901), 1902, (1-24, con tav.). [3007 3031]. 111

**Poljanaky, J.** Zur Embryologie des Skorpions. (Dotter und Embryonalhüllen). Zool. Anz., Leipzig, 27, 1903, (49-58). [3015 3031]. 112

**Puroell, W. F.** On the scorpions, Solifugae, and a trap-door spider collected by the Rev. Henri A. Junod at Shilouvane, near Leydsdorp, in the Transvaal. Nov. Zool., Tring, 10, 1903, (303-306, 2 text-figs.). [3027 fg 3031]. 113

Descriptions of new genera and species of South African *Solpugidae* with text figures. Cape Town, Ann. S. Afric. Mus., 3, pt. I, 1903, (1-12). [3027 fg 3031]. 114

New Arachnida collected by Mr. S. C. Cronwright Schreiner at Hanover, Cape Colony. Cape Town, Ann. S. Afric. Mus., 3, pt. I, 1903, (13-40, with 1 pl.). [3027 fg 3031]. 115

New South African spiders of the families *Migidae*, *Ctenizidae*, *Barychelidae*, *Dipluridae*, and *Lycosidae*. Cape Town, Ann. S. Afric. Mus., 3, 1903, (69-141, pl. VIII). [3027 fg 3031]. 116

**Quall, A.** A fly and a spider (*Salix monachus* and *Porrhothele antipodiana*). Wellington, Trans. N. Zeal. Inst., 35, 1903, (256-258). [4619 3019]. 117

**Rainbow, W. J.** Studies on Australian *Araneidae*. No. 1. Sydney, N.S.W., Rec. Austr. Mus., 5, 1903, (63-66, with 2 text figs.). [3031]. 118

**Reitmayer, Carl Aug.** Beobachtungen an der Wasserspinne. Bl. Aquarienkunde, Magdeburg, 14, 1903, (30-32). [3031]. 119

**Rothschild, N. C.** v. Pocock, R. I.

**Rucker, Augusta.** A new *Koenenia* from Texas. Q. J. Microsc. Sci., London, (N. Ser.), 47, 1903, (215-231, pl. XVIII); [abstract], London, J. R. Microsc. Soc., 1903, (609). [3027 gi 3031]. 120

Further observations on *Koenenia*. Zool. Jahrb., Jena, Abt. f. Syst., 18, 1903, (401-434, mit 3 Taf.). [3031]. 121

**Sainte-Claire Deville, J.** Exploration entomologique des grottes des Alpes-Maritimes. Ann. Soc. ent., Paris, 71, 1902, [1903], (695-709, av. fig.). [2427 df 2431 2631 3031 3431 3631 3831 4831]. 122

**Štelkarnovcov, J. P.** Beiträge zur Anatomie der Pseudoscorpioniden. (Russ.) Moskva, Zap. Univ. [Sectio hist. nat.], 18, 1903, (I-V + 1-202, mit 3 Taf.). [3007 3031]. 123

v. Stschelanovtzeff.

**Ščerbins, A.** Die Lymphe als Heilmittel beim Biss der Malmignatte (*Latrodectus malmignatus* Walk.) A. d. biolog. Instit. am Krankenhaus von Novokaterinskoje. (Russ.) Trd. B. entom. Učen. Kom. M. Zeml., St. Petersburg, IV, No. 4, 1903, (28, mit 4 Fig. u. 5 Diagr.). [3003 3011 3031]. 124

**Scharff, R. F.** Some remarks on the Atlantis problem. Dublin, Proc. R. Irish Acad., 24 B, 1903, (268-302, 2 figs.). [Distribution of Arachnida, pp. 291 and 292.] [3027 lb 0227]. 125

**Schminkewitsch, W.** [ladimir]. Ueber die Entwicklung von *Telyphonus caudatus* (L.). Zool. Anz., Leipzig, 26, 1903, (665-685); [abstract], London, J. R. Microsc. Soc., 1903, (41). [3015 3031]. 126

**Schütz, [Johann Wilhelm]** v. Kossel, H.

**Schweizerbarth, [Elise]** von. Skorpionen. Natur und Haus, Dresden, 11, 1903, (121-122). [3019 3031]. 127

**Silvestri, Filippo.** Sopra un acaro radicolico che produce una speciale malattia nelle viti (*Cosmophagus echinopus*). Bollettino di Entomologia agraria, Padova, 9, 1902, (49-56, con fig.). [3019 3031]. 128

**Simon, E.** Descriptions d'arachnides nouveaux de la famille des *Salicidae* (*Attidae*). Bruxelles, Ann. soc. ent. Belgique, 46, 1902, (24-56). [3031]. 129

—— Description d'arachnides nouveaux. Bruxelles, Ann. soc. ent. Belgique, 47, 1903, (21-39). [3031]. 130

—— Description d'Arachnides nouveaux de la famille des *Aviculariidae* faisant partie des collections du Muséum. Bul. Muséum, Paris, 1902, (595-599). [3031]. 131

—— Descriptions d'Arachnides nouveaux de Madagascar, faisant partie des collections du Muséum. Bul. Muséum, Paris, 1903, (133-140). [3031 3027 fh]. 132

—— Études arachnologiques (33<sup>e</sup> Mémoire). Paris, Ann. soc. ent., 71, (2<sup>e</sup> semest.), 1902, [1903], (719-736). [3031 3027 fd ed]. 133

—— Études arachnologiques (34<sup>e</sup> Mémoire). Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (304-314). [3031 3027 eg hl he]. 134

—— Descriptions de quelques Arachnides nouveaux de la section des Cribellatés. Paris, Bul. soc. ent., 1902, (240-243). [3031]. 135

**Smith, Frank P.** Notes on the spiders . . . Epping Forest. Stratford, Essex Nat., 13, 1903, (22-23, 49-60, pls. IV, V). [3027 de 3031]. 136

—— *Zora maculata* and *Oonops pulcher*. Grimsby. Naturalist, London, 1903, (30). [3027 de]. 137

—— *Aranea* from Epping Forest. Naturalist, London, 1903, (164-165). [3027 de]. 138

**Soar, C. R.** A few words on freshwater mites (*Hydrachnidae*). Edinburgh, Trans. Nat. Soc., 5, 1903, (40-46, pls. III-VI). [3027 de 3031]. 139

—— Note on the occurrence of living Hydrachnid larvæ in the stomach of a trout. London, J. Quek. Microsc. Cl., 8, 1903, (463-464, 4 text-figs.);

[abstract], London, J. R. Microsc. Soc., 1903, (609). [3019]. 140

**Stcherbatchoff, [Nadine].** Le *Demodex folliculorum* Simon dans les follicules ciliaires de l'homme. Thèse Med. Lausanne (Guerx), 1903, (23, av. 1 pl.). 8vo. [3019 3031 6019]. 141

**Stowe.** [Acarid galls.] Naturalist, London, 1903, (383). [3019 3027 de]. 142

**Strand, Embr.** Theridiiden und Argiopiden, gesammelt von Mr. H. Seabohm in Krasnojarsk (Sibirien) 1878. Bergens Mus. Aarb., 1903, No. 10, (8). [3027 ea]. 143

—— Our spiders. (Norw.) Bergen, Naturen, 27, 1903, (180-191). [3007 3031]. 144

**Stschelkanovtzeff, J. P.** Beiträge zur Kenntnis der Segmentierung und des Körperbaues der Pseudoscorpione. Zool. Anz., Leipzig, 28, 1903, (318-334). [3007]. 145

—— v. Ščelkanovcev.

**Thon, K.** Die neuen Exkretionsorgane bei der Hydrachniden-Familie *Limn-charidae* Kr. Verh. D. zool. Ges., Leipzig, 13, 1903, (166-168). [3007 3031]. 146

—— Monographie der Wassermilben Böhmens I *Limncharidae* Kram. (Bohemian) Arch. Pflod. Vyzk. Čech., Prag, 12, Nr 2, 1903, (75, mit 37 Text-fig.). [3007 3031]. 147

—— Ueber eine neue parasitische *Atax*-Art aus Texas. Wien, Ann. Nat. Hist. Hofmus., 16, 1901, (31-35, mit 1 Taf.). [3031]. 148

**Thor, Sig.** Eine acarologische Reise nach Schwarzbach bei Zweibrücken. Nyt Mag. Naturv., Kristiania, 41, 1903, (69-72). [3031]. 149

—— Zwei neue Formen aus der alten Neuman'schen Typensammlung. Nyt Mag. Naturv., Kristiania, 41, 1903, (73-75, 4 fig.). [3007 3031]. 150

**Tullgren, Albert.** Chelonethi from Camerun in West Africa, collected by Dr. Yngve Sjostedt. Entomol. Tidskr., Stockholm, 22, 1901, (97-101, with pl.). [3027 fd 3031]. 151

—— On *Ixodes arenicola* Eichwald [possibly identical with *Hyalomma aegyptium* Tullgr.]. Entomol. Tidskr., Stockholm, 22, 1901, (102). [3031]. 152

**Twight, E. H.** v. Bioletti, F. T.

**Ulrich, Carl Jost.** A contribution to the subterranean fauna of Texas. [Arthropoda, with nn. spp. in Crustacea, Arachnida and Aptera.] Contributions from the Zoological Laboratory of the Indiana University No. **34** in Lincoln, Nebr., Trans. Amer. Microsc. Soc., **23**, 1901, [1902], (83-100, with pl.). [0219 2427 gi 2631 3031 3631]. 153

**Waterston, J.** *Roncus cambridgii* L. K., in Argyllshire. Ann. Scot. Nat. Hist., Edinburgh, **1903**, (187). [3031 3027 de]. 154

**Weber, August** v. Kossel, H.

**With, C. [J.]** New and old *Phalangidae* from the Indian region. London, J. Linn. Soc. Zool., **28**, 1903, (466-509). [3027 ef 3031]. 155

— A new Acaride, *Opilioacarus segmentatus*. Helsingfors, Comptes rendus du Congrès des Naturalistes et Médecins du Nord tenu à Helsingfors du 7 au 12 juillet 1902, **1903**, VI Section, (4-5). [3007 3031]. 156

**Wolcott, Robert H[enry]**. The North American species of *Limnesia*. [With bibliography.] Lincoln, Stud. Zool. Lab., Univ. Nebr. No. **56**, 1903, ([85]-107, with pl.). Separate. 23.3 cm. [3027 g 3031]. 157

**Woodruffe-Peacock and Stowe.** [Acarid galls]. Naturalist, London, **1903**, (305-306). [3019 3027 de]. 158

**Woodworth, C. W.** The red spider [*Tetranychus mytilaspidis*] of citrus trees. Agric. Exp. Sta., California, Berkeley, Bull. No. **145**, 1902, (19, with text-fig.). 23 cm. [Review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta., Rec., **14**, 1903, (782). [3019 3031]. 159

### 3003 COMPREHENSIVE AND GENERAL WORKS.

#### GENERAL.

**Jacot, E.** Etude sur les arachnides. Fragment d'entomologie. Messenger Suisse Rom., Fribourg, **16**, 1903, (45, 54, 68-69).

**Patterson, Alice Jean.** The spinner family . . . with drawings in the text by Bruce Horsfall. Chicago (A. C.

McClurg & Co.), 1903, (xi + 15-159, with illustr.). 20 cm.

**Pocock, R. I.** Arachnida. In The Nat. Hist. Sokotra. Special Bull. Liverp. Mus., **1903**, (175-208, pls. XIV, XXVI, figs. 1-4a, 2 text-figs.).

#### ECONOMICS.

**Bioletti, F. T.** and **Twight, E. H.** Erinose of the vine [*Phytoptus vitis*]. Agric. Exp. Sta., California, Berkeley Bull. No. **136**, 1901, (7, with 5 figs.). 23 cm. [Review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., **13**, 1902, (768).

**Ščerbina, A.** Die Lymphe als Heilmittel beim Biss der Malmignatte (*Latrodectus malmignatus*, Walk.) Aus dem biologischen Institut am Krankenhaus von Novo - Ekaterinskoje. (Russ.) Trd. B. entom. Učen. Kom. M. Keml., St. Petersburg, **IV**, No. 4, 1903, (28, mit 4 Fig. u. 5 Diagr.).

### 3007 STRUCTURE.

#### GENERAL.

**Cambridge, F. O. Pickard.** Arachnida Araneida II. Biol.-Centr.-Amer., London, **1903**, (425-440, pls. XL, XLI, 441-448, pl. XLII, 449-464, pls. XLIII, XLIV).

**Hansen, H. J.** On six species of *Koenenia*, with remarks on the order Palpigradi. Entomol. Tidskr., Stockholm, **22**, 1901, (193-240, with pl.).

**Pocock, R. I.** The systematic position of the genus *Hadrotarsus* Thorell. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (619-621).

— A new Carboniferous Arachnid. Geol. Mag., London, [4], **10**, 1903, (247-251, 2 text-figs.).

**Ščolkanovcev, Ja. P.** Beiträge zur Anatomie der Pseudoscorpioniden. (Russ.) Moskva. Zap. Univ. (Sectio hist.-nat.), **18**, 1903, (I-V, 1-202, mit 3 Taf.).

**Strand, Embr.** Our spiders. (Norw.) Bergen, Naturen, **27**, 1903, (180-191).

**Thon, K.** [Anatomie der Hydrachniden.] Prag. Arch. Přírod. Vyzk. Čech., **12**, Nr. 2, 1903, (75, mit 37 Textfig.).

**With, C.** A new Acaride *Opilioacarus segmentatus*. Helsingfors, Comptes rendus du Congrès des Naturalistes et Médecins du Nord tenu à Helsingfors du 7 au 12 juillet 1902, 1903, VI Section, (4-5).

## COMPARATIVE ANATOMY.

**Carpenter, G. H.** On the relationships between the classes of the Arthropoda. Dublin, Proc. R. Irish Acad., 24, Sect. B, pt. 4, 1903, (320-360, pl. VI, 5 text figs.); [abstract], London, J. R. Microsc. Soc., 1904, (178).

**Loman, J. C. C.** Vergleichend anatomische Untersuchungen an chilenischen und andern Opilioniden. Zool. Jahrb., Jena, Suppl. 6, 1903, (117-200, mit 4 Taf.).

**Thor, Sig.** Zwei neue Formen aus der alten Neuman'schen Typensammlung. Nyt Mag. Naturv., Kristiania, 41, 1903 (73-75, 4 fig.).

## NERVOUS SYSTEM.

**Police, G.** Sui centri nervosi sotto-intestinali dell' *Euscorpius italicus*. Napoli, Boll. Soc. Nat., 15, (1901), 1902, (1-24, con tav.).

## EXCRETORY ORGANS.

**Davydov, K. N.** Les résultats du voyage scientifique au Java et les autres îles de l'Archipel Malais. I. Sur les organes excréteurs et la phagocytose éliminatrice chez le *Telyphonus* de Java. (Comm. prélim.) St. Peterburg., Bull. Ac. Sc., (5 Sér.), 18, No. 5, 1903, (201-206).

**Thom, K.** Die neuen Exkretionsorgane bei der Hydrachniden-Familie *Limnochardidae* Kr. Verh. D. zool. Ges., Leipzig, 13, 1903 (166-168).

## SPECIAL EXTERNAL CHARACTERS.

**Banks, Nathan.** Secondary sexual characters in spiders. Washington, D.C., Proc. Ent. Soc., 5, 1903, (104-107).

**Cambridge, F. O. P.** On some secondary sexual characters in the genus *Aranea* Linn. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (59-60, with 1 text-fig.).

**Stechelkanovtseff, J. P.** Beiträge zur Kenntnis der Segmentierung und des Körperbaues der Pseudoscorpione. Zool. Anz., Leipzig, 26, 1903, (318-334).

## 3011 PHYSIOLOGY.

## FUNCTIONS OF SPECIAL STRUCTURES.

**Davydov, K. N.** Les résultats du voyage scientifique au Java et les autres îles de l'Archipel Malais. I. Sur les organes excréteurs et la phagocytose éliminatrice chez le *Telyphonus* de Java (Comm. prélim.) St. Peterburg., Bull. Ac. Sc., (5 Sér.), 18, No. 5, 1903, (201-206).

**Ščerbina, A.** Die Lymphe als Heilmittel beim Biss der Malmignatte (*Latrodectus malmignatus* Walk.) A. d. biolog. Institut. au Krankenhaus von Novo-Ekaterinskoje. (Russ.) Trd. B. entom. Učen. Kom. M. Zeml., St. Peterburg, IV, No. 4, 1903, (28 mit 4 Fig. u. 5 Diagr.).

## 3015 DEVELOPMENT.

## GENERAL.

**Michael, Albert D.** British *Tyroglyphidae*, Vol. II, London, (Ray Society), 1903, (VII + 183, pls. XX-XXXIX). 8vo.

**Pocock, R. I. and Rothschild, N. C.** On a new "Bird's dung" spider from Ceylon. London, Proc. Zool. Soc., 1903, 1, (48-51, pl. X).

## EMBRYOLOGY.

**Pappenheim, Paul.** Beiträge zur Kenntnis der Entwicklungsgeschichte von *Dolomedes fimbriatus* Clerck, mit besonderer Berücksichtigung der Bildung des Gehirns und der Augen. Zs. wiss. Zool., Leipzig, 74, 1903, (109-154, mit 2 Taf.).

**Poljanaky, J.** Zur Embryologie des Skorpions. (Dotter und Embryonalhüllen). Zool. Anz., Leipzig, 27, 1903, (49-58).

**Schilmkewitsch, W[ladimir].** Ueber die Entwicklung von *Telyphonus caudatus* (L.) L.c. 26, 1903, (665-685); [abstract], London, J. R. Microsc. Soc., 1903, (41).



## POSTEMBRYONIC ONTOGENY.

**Bonnet, A.** Sur le développement postembryonnaire des Ixodes. Paris, C.-R. Acad. sci., **137**, 1903, (419-420).

## METAMORPHOSIS AND LARVAL FORMS.

**Dahl, Friedrich.** Eine eigenartige Metamorphose der Trogliden, eine Verwandlung von *Amopaum* in *Dicranolasma* und von *Metopoetea* in *Trogulus*. Berlin, SitzBer. Ges. natf. Freunde, **1903**, (278-292).

## 3019 ETHOLOGY.

## GENERAL.

**Favler, abbé G.** Observation à propos d'une araignée de Madagascar. Paris, Ann. Soc. ent., **71**, 1902, (488-498, av. pl.).

**Neumann, L. G.** Note sur les Ixodides. Arch. parasit., Paris, **6**, 1902, (109-128).

**Quail, A.** A fly and a spider (*Salix monachus* and *Porrhothele antipodiana*). Wellington, Trans. N. Zeal. Inst., **35**, 1903, (256-268).

## HABITS.

**Hutchinson, Charles E.** A bolas throwing spider. [*Ordgarius cornigerus*.] Sci. Amer., New York, N.Y., **89**, 1903, (172).

**Montgomery, Thomas H**[arrison], jun. Studies on the habits of spiders, particularly those of the mating period. [With bibliography.] Philadelphia, Pa., Proc. Acad. Nat. Sci., **55**, 1903, (59-149, with pl.).

## MIGRATION.

**Fabre, J. H.** Exode des araignées. Louvain (Imprimerie Polleunis et Ceuterick), 1903, (25 pl.). 8vo. 1 fr.

## PARENTAL RELATIONS.

**Schweizerbarth, [Elise]** von. Skorpionen. Natur und Haus, Dresden, **11**, 1903, (121-122).

## SEXUAL RELATIONS.

**Dahl, Friedr.** Ueber abgebrochene Copulationsorgane männlicher Spinnen im Körper der Weibchen. Berlin, SitzBer. Ges. natf. Freunde, **1902**, (36-45).

**Howlett, W. F.** [Note on copulation in a "water mite."]. Zoologist, London, (Ser. 4), **7**, 1903, (355).

## HABITAT.

**Dahl, Friedrich.** Ueber Stufenfänge echter Spinnen am Riesengebirge. (Eine vergleichend ethologische Studie.) Berlin, SitzBer. Ges. natf. Freunde, **1902**, (185-203, mit Tab.).

——— Berichtungen zu dem Vortrag über Stufenfänge echter Spinnen am Riesengebirge. Berlin, SitzBer. Ges. natf. Freunde, **1903**, (183-184).

**Deventer, W. van.** Insekteneier, welche oft auf Zuckerrohr angetroffen werden. (Holländisch.) Arch. Java Suiker., Soerabaia, **11**, 1903, (437-446, 2 Taf.).

**Kew, H. W.** Snails and spiders on towers. Naturalist, London, **1903**, (342-343).

## SYMBIOSIS.

**Oudemans, A. C.** Symbiose von *Coptorthosoma* und *Greenia*. Eine Prioritätsfrage. Zool. Anz., Leipzig, **27**, 1903, (137-139).

**Pocock, R. I.** Notes on the commensalism subsisting between a gregarious spider *Stegodyphus* sp., and the moth *Batrachedra stegodyphobius* Wlsm. Ent. Mag., London, **39**, 1903, (167-170).

## PARASITISM.

**Godfrey.** Ichneumon parasitic on *Obsidium*. Ann. Scot. Nat. Hist., Edinburgh, **1903**, (247).

**Joersch, [Karl Ernst Johann].** *Demodex* s. *Acarus folliculorum* und seine Beziehung zur Lidrandentzündung. Giessen, Ber. Ges. Natk., **33**, 1899-1902, (113-115).

**Kulwiec**, K. Parasites des insectes. (Polonais) *Wszeczwiat*, Warszawa, **22**, 1903, (213-217, 216-249).

**Laveran**, A. Au sujet du rôle des tiques dans la propagation des piroplasmoses. Paris, C.-R. soc. biol., **55**, 1903, (61-63).

**Mégnin**, [Pierre]. Rôle des tiques ou Ixodes dans la propagation des piroplasmoses. *l.c.* (4-6).

Un dernier mot sur le rôle des Ixodes [*Rhipicephalus*] dans la propagation des piroplasmoses. *l.c.* (147-149).

Encore un mot sur la biologie des Ixodes. *l.c.* (175-176).

**Neumann**, L. G. Note sur une collection d'Ectoparasites recueillis en Abyssinie par M. le baron C. von Erlanger. Arch. parasit., Paris, **6**, 1902, (293-294).

**Soar**, C. R. Note on the occurrence of living Hydrachnid larvae in the stomach of a trout. London, J. Quek. Microsc. Cl., **8**, 1903, (463-464, 4 text-figs.); [abstract], London, J. R. Microsc. Soc., **1903**, (609).

**Stcherbatchoff**, [Nadine]. Le *Demoz folliculorum* Simon dans les follicules ciliaires de l'homme. Thèse Méd. Lausanne (Guesse), 1903, (23, av. 1 pl.).

**Stowe**. [Acarid galls.] Naturalist, London, **1903**, (383).

**Woodruffe-Peacock** and **Stowe**. [Acarid galls.] *l.c.* (305-306).

#### DEFENSIVE PROCESSES.

**Brébion**. Résistance vitale d'un scorpion. Chalon-sur-Saône, Bul. soc. sci. nat., (n. sér. **9**), **29**, 1903, (130).

**Dahl**, Friedr. Täuschende Ähnlichkeit zwischen einer deutschen Springspinne (*Ballus depressus*) und einem am gleichen Orte vorkommenden Rüsselkäfer (*Strophosomus capitatus*). Berlin, SitzBer. Ges. natf. Freunde, **1903**, (273-278).

#### UTILITY AND HARMFULNESS.

**Bachmann**, [Franz Ewald]. Tödliche Verletzungen durch südafrikanische Skorpione. Verh. Ges. D. Natf., Leipzig, **73**, (1901), II, 2, 1902, (584-587).

**Dahl**, Friedr. Wird der Skorpion durch seinen Stich dem Menschen gefährlich? Natw. Wochenschr., Jena, **19**, 1903, (97-99).

**Dementjew**, A. M. Neue Pflanzenparasiten, welche die Chlorose der Weinrebe verursachen. Zs. Pflanzenkrankh., Stuttgart, **13**, 1903, (65-82).

**Hickman**, R. W. Scabies in cattle [caused by *Psoroptes*]. Washington, D.C., U. S. Dept. Agric. Rep. Bur. Anim. Indust., **1902**, 1903, (45-61, with pl.).

**Hineck**, G. Dperimento delle viti per causa di un acaro (*Coepophagus echinopus*). Bollettino di Entomologia agraria, Padova, **9**, 1902, (33-35).

**Kossel**, H[ermann], **Schütz**, [Johann Wilhelm], **Weber**, August, **Miesner**, [Hermann]. Ueber die Hämoglobinurie der Rinder in Deutschland. Berlin, Arb. Gesundheitsamt, **20**, 1903, (1-77, mit 3 Taf.).

**Ludwig**, F[riedrich]. Warnung vor dem Polstermaterial „Crin d'Afrique“. Prometheus, Berlin, **15**, 1903, (196-198).

**Maurizio**, A. Verunreinigung der Kraftfuttermittel durch Milben. Schweiz. Landw. Zeitschr., Aarau, **30**, 1902, (1001-1004, mit 2 fig.).

**Silvestri**, Filippo. Sopra un acaro radicolico che produce una speciale malattia nelle viti (*Coepophagus echinopus*). Bollettino di Entomologia agraria, Padova, **9**, 1902, (49-56, con fig.).

**Woodworth**, C. W. The red spider [*Tetranychus mytilaspidis*] of citrus trees. Agric. Exp. Sta., California, Berkeley, Bull. No. **145**, 1902, (19, with text fig.). 23 cm. [Review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta., Rec., **14**, 1903, (782).

## 3027 GEOGRAPHICAL DISTRIBUTION.

### a THE EARTH AS A WHOLE.

**Pocock**, R. I. On the geographical distribution of spiders of the order Mygalomorphae. [Also on distrib. of some Arachnomorphae.] London, Proc. Zool. Soc., **1903**, 1, (340-368, with 4 text-figs.).

— Fifteen new species and two new genera of Tropical and Southern

Opiliones. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (433-450, pls. XI-XII).

d EUROPE.

da SCANDINAVIA.

**Ellingsen**, Edv. Pseudoscorpiones found in Norway. I. (Norw.) Kristiania, Forh. Vid. selsk., 1903, No. 5, (18).

db RUSSIA IN EUROPE.

**Birulia**, A. A. Note sur la distribution géographique de quelques scorpions du Caucase. (Russ.) St. Petersburg, Ann. Mus. zool. Ac. Sc., 8, 1903, (XVII-XIX).

de GERMAN EMPIRE.

**Bösenberg**, W. Die Spinnen Deutschlands, V. Zoologica, Stuttgart, Heft 35V (= Bd 14, Lfg 5/6), 1903, (I-V, 385-465, mit 7 Taf.).

**Dahl**, Friedrich. Ueber Stufenfänge echter Spinnen am Riesengebirge. (Eine vergleichend ethologische Studie.) Berlin, SitzBer. Ges. natf. Freunde, 1902, (185-203, mit Tab.).

——— Berichtungen zu dem Vortrag über Stufenfänge echter Spinnen am Riesengebirge. Lc. 1903, (183-184).

**Heller**, Eugen. Die Opilioniden Württembergs. Insektenbörse, Leipzig, 20, 1903, (379-380, 394-395, 405, 411-412).

**Müller**, Herm. Hydrachniden. (Hamburgische Elb-Untersuchung.) Hamburg, Jahrb. wiss. Anst., 19, (1901), Beih. 2, 1903, (155-161).

**Pierzig**, Richard. Neues Verzeichnis der bisher im sächsischen Erzgebirge aufgefundenen Hydrachniden-Formen. Annaberg, Ber. Ver. Natk., 11, (1898-1903), 1903, (34-46, mit 2 Taf.).

de BRITISH ISLANDS.

**Cambridge**, F. O. P. List of the Araneidae or spiders of the Channel Islands. Rep. Guernsey Soc. Nat. Sci., 1902, (1903), (141-144).

**Cambridge**, F. O. P. On new and rare British spiders. Dorchester, Proc. Dorset. Nat. Hist. F. Cl., 24, 1903, (149-171, pl. A.).

——— Arachnida in "Three weeks in South Kerry, June, 1902." Irish Nat., Dublin, 12, 1903, (69).

**Evans**, W. [*Chelifer (Chernes) tullgreni* = *C. dubius*] from Linlithgow. Ann. Scot. Nat. Hist., Edinburgh, 1903, (120, 249).

**George**, C. F. Lincolnshire freshwater mites. Naturalist, London, 1903, (83-84, 5 figs., 111-112, 8 figs., 215-216, 252, 3 figs., 304, 2 figs., 324, 2 figs., 421, 422, 5 figs.).

**Halbert**, J. N. Notes on Irish species of *Eylais*. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (505-515, with 10 figs.).

——— Notes on Irish freshwater mites. Zool. Anz., Leipzig, 26, 1903, (265-272).

**Kew**, H. Wallis. North of England Pseudoscorpions. Naturalist, London, 1903, (293-300, 2 text-figs.).

**Michael**, Albert D. British Tyroglyphidae, Vol. ii. London, (Ray Society), 1903, (VII, 183, pls. XX-XXXIX).

**Smith**. *Zora maculata* and *Oonops pulcher* Grimsby. Naturalist, London, 1903, (30).

——— Araneae from Epping Forest. Lc. (164-165).

——— Notes on the spiders . . . Epping Forest. Stratford, Essex Nat., 13, 1903, (22-23, 49-60, pls. IV-V).

**Soar**, C. R. A few words on freshwater mites (*Hydrachnidae*). Edinburgh, Trans. Nat. Soc., 5, 1903, (40-46, pls. III-VI).

**Stowe**. [Acarid galls.] Naturalist, London, 1903, (383).

**Waterston**. [*Roncus cambridgii* from Argyllshire.] Ann. Scot. Nat. Hist., Edinburgh, 1903, (187).

**Woodruffe - Peacock** and **Stowe**. [Acarid galls.] Naturalist, London, 1903, (305-306).

dg SPAIN.

**Peacock**, R. I. Descriptions of four new Arachnida of the orders Pedipalpi, Solifugae, and Araneae. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (220-226, with 1 text-fig.).

## dh ITALY.

**Maruod**, [V.]. Nota preliminare sugli Idracnidi del lago di Castel Gandolfo. *Mon. zool. ital.*, Firenze, **13**, 1902, (Supplemento), (35).

## dk AUSTRIA-HUNGARY.

**Daday**, E. von. Die Eylaisarten Ungarns. *Math.-natw. Ber. Ungarn*, Leipzig, **18**, (1900), 1903, (341-364).

**Istvánfi**, Gyula. Das gemeinsame Auftreten des Pilzes: *Ithyphallus* und der Milbe: *Coepophatus* in Ungarn. (Ungarisch) *Math. Term. Ért.*, Budapest, **21**, 1903, (157-176).

**Largiolli**, Vittorio. Idracne del Trentino. Quarto Contributo allo studio delle Idracne italiane [?]. *Tridentum*, Trient, **6**, 1903, (132-136).

**Nosek**. Übersicht der Pseudoscorpioniden und deren geographische Verbreitung. (Böhmisch) *Progr. Gymn. Caslav*, 1901, (28).

## dm MEDITERRANEAN AND ISLANDS.

**Kulczyński**, VI[adislau, Władysław]. *Aranearum et Opilionum species in insula Creta a Comite Dre Carolo Attems collectae*. Kraków, *Bull. Intern. Acad.*, 1903, (32-58, with 1 pl.).

## e ASIA.

## ea ASIATIC RUSSIA.

**Strand**, Embr. Theridiiden und Argiopiden gesammelt von Mr. H. Seeböhm in Krasnojarsk (Sibirien 1878). *Bergens, Mus. Aarb.*, 1903, No. 10, (8).

## ed COCHIN CHINA: TONQUIN.

**Simon**, E. Études arachnologiques (33<sup>e</sup> Mémoire). Paris, *Ann. soc. ent.*, **71**, (2<sup>e</sup> semest.), 1902, [1903], (719-736).

## ee SIAM.

**Pocock**, R. I. Some Arachnida collected by Mr. G. W. Bury in Yemen. *Ann. Mag. Nat. Hist.*, London, (Ser. 7), **11**, 1903, (214-220, with 2 text-figs.).

## ef BRITISH INDIA: CEYLON.

**Pocock**, R. I. and **Bothschild**, N. C. On a new "Bird's-dung" spider from Ceylon. London, *Proc. Zool. Soc.*, **1903**, **1**, (48-51, pl. X).

**With**, C. [J.]. New and old *Phalangidae* from the Indian Region. London, *J. Linn. Soc. Zool.*, **28**, 1903, (466-509).

## eg MALAY PENINSULA.

**Simon**, E. Études arachnologiques (34<sup>e</sup> Mémoire). Paris, *Ann. soc. ent.*, **72**, (2<sup>e</sup> semest.), 1903, (304-314).

## eh PERSIA.

**Birulla**, A. A. Beiträge zur Kenntniss der Scorpionenfauna Ostpersiens (II. Beitrag). St. Petersburg, *Bull. Ac. Sc.*, (5 F.), **19**, No. 2, 1903, (67-80).

## f AFRICA.

## fa MEDITERRANEAN STATES.

**Birulla**, A. A. Bemerkungen über einige neue oder wenig bekannte Scorpionenformen Nord-Afrikas. St. Petersburg, *Bull. Ac. Sc.*, (5 F.), **19**, No. 3, 1903, (105-113).

## fb NORTH EAST AFRICA.

**Kraepelin**, K[arl]. Scorpione und Solifugen Nordost-Afrikas, gesammelt 1900 und 1902 von Carlo Freiherrn von Erlanger und Oscar Neumann. *Zool. Jahrb.*, Jena, Abt. f. Syst., **18**, 1903, (557-578).

## fd WEST AFRICA.

**Pocock**, R. I. Some new spiders from the Camaroons collected by Mr. G. L. Bates. *Ann. Mag. Nat. Hist.*, London, (Ser. 7), **11**, 1903, (258-264).

**Simon**, E. Études arachnologiques (33<sup>e</sup> Mémoire). Paris, *Ann. soc. ent.*, **71**, (2<sup>e</sup> semest.), 1902 [1903], (719-736).

**Tullgren**, Albert. Chelonethi from Camerun in Westafrika collected by Dr. Yngve Sjöstedt. *Entomol. Tidskr.*, Stockholm, **22**, 1901, (97-101, with pl.).

## ff EAST AFRICA.

**Pocock, R. I.** On a new species of marine spider of the genus *Desis* from Zanzibar. London, Proc. Zool. Soc., 1902, 2, 1903, (389-392, 1 text-fig.).

On some new harvest spiders of the order Opiliones from the Southern Continents. *l.c.* (392-413, with 6 text-figs.).

Arachnida. In Nat. Hist. Sokotra . . . Special Bull. Liverp. Mus., 1903, (175-208, pl. XIV and pl. XXVI, figs. 1-4a, 2 text-figs.).

## fg SOUTH AFRICA.

**Peckham, George W[illiams] and Peckham, Elizabeth G[ifford].** New species of the family *Attidae* from South Africa, with notes on the distribution of the genera found in the Ethiopian region. Madison, Trans. Wis. Acad. Sci., 14, (1902), 1903, (173-278, with pl.).

**Pocock, R. I.** On some new harvest-spiders of the order Opiliones from the Southern Continents. London, Proc. Zool. Soc., 1902, 2, 1903, (392-413, with 6 text-figs.).

**Purcell, W. F.** Descriptions of new genera and species of South African *Solpugidae*, with eight text-figures. Cape Town, Ann. S. Afric. Mus., 3, pt. I, 1903, (1-12).

New Arachnida collected by Mr. S. C. Cronwright Schreiner at Hanover, Cape Colony. *l.c.* (13-40, with 1 pl.).

New South African spiders of the families *Migidae*, *Ctenizidae*, *Barychelidae*, *Dipluridae* and *Lycosidae*. *l.c.* (69-141, pl. VIII).

On the scorpions, Solifugae, and a trap-door spider collected by the Rev. Henri A. Junod at Shilouvane, near Leydsdorp, in the Transvaal. Nov. Zool., Tring, 10, 1903, (305-306, 2 text-figs.).

## fh MADAGASCAR.

**Birulia, A. A.** Sur une nouvelle espèce de scorpion provenant de Madagascar. (Russ.) St. Petersburg, Ann. Mus. zool. Ac. Sc., 1903, (X-XI).

**Pocock, R. I.** On some new harvest-spiders of the order Opiliones from the Southern Continents. London, Proc. Zool. Soc., 1902, 2, 1903, (392-413, with 6 text-figs.).

Descriptions of four new Arachnida of the orders Pedipalpi, Solifugae, and Araneae. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (220-226, with 1 text-fig.).

**Simon, E.** Descriptions d'Arachnides nouveaux de Madagascar, faisant partie des collections du Muséum. Bul. Muséum, Paris, 1903, (133-140).

## g NORTH AMERICA.

**Wolcott, Robert H[enry].** The North American species of *Limnesia*, [with bibliography]. Lincoln, Stud. Zool. Lab., Univ. Nebr. No. 56, 1903, ([85]-107, with pl.). Separate, 23.3 cm.

## gg NORTH EASTERN UNITED STATES.

**Banks, Nathan.** Daddy-long-legs from Mt. Katahdin, Maine. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (308-309).

## gi WESTERN UNITED STATES.

**Anderson, John F.** Spotted fever (tick fever) of the Rocky mountains. A new disease [caused by species of *Dermaeontor*, probably *D. reticulatus*]. [Appendix: A report of two cases . . . by Dr. G. A. Gates.] Washington, D.C., Treas. Dept., Pub. Hlth. Mar. Hosp. Serv., Hyg. Lab. Bull. No. 14, 1903, (50). 23 cm.

**Banks, Nathan.** A new genus of Solpugida [*Hemerotrecha californica* n. gen. et sp. from California]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (78-79, with text-fig.).

**Rucker, Augusta.** A new *Koenenia* from Texas. London, Q. J. Microsc. Sci., (N. Ser.), 47, 1903, (215-231, pl. XVIII); [abstract], J. R. Microsc. Sci., London, 1903, (609).

## h CENTRAL AND SOUTH AMERICA.

**Pocock, R. I.** On some genera and species of South American *Aviculariidae*. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (81-115).

## hb CENTRAL AMERICA.

**Cambridge, F. O. Pickard.** Arachnida Araneida II. Biol. Centr.-Amer., London, 1903, (425-440, pls. XL, XLI, 441-448, pl. XLII, 449-464, pls. XLIII, XLIV).

## hc WEST INDIAN ISLANDS.

**Banks, Nathan.** A list of Arachnida from Hayti, with descriptions of new species. Philadelphia, Pa., Proc. Acad. Nat. Sci., 55, 1903, (340-345, with pl.).

## he ECUADOR.

**Simon, E.** Études arachnologiques (34<sup>e</sup> Mémoire). Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (304-314).

## hf PERU.

**Pocock, R. I.** Descriptions of four new Arachnida of the Orders Pedipalpi, Solifugae and Araneae. Ann. Mag. Nat. Hist., London, (Ser. 7), 41, 1903, (220-226, with 1 text-fig.).

## hl TIERRA DEL FUEGO AND NEIGHBOURING ISLANDS.

**Simon, E.** Études arachnologiques (34<sup>e</sup> Mémoire). Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (304-314).

## i AUSTRALASIA.

## ic AUSTRALIA.

**Hogg, H. R.** On the Australian spiders of the subfamily Sparassinae. London, Proc. Zool. Soc., 1902, 2, 1903, (414-466, 20 text-figs.).

Two new Australian spiders of the family Ctenisidae. Ann. Mag. Nat. Hist., London, (Ser. 7), 41, 1903, (308-312, 3 text-figs.).

## ih WEST AUSTRALIA.

**Pocock, R. I.** On some new harvest-spiders of the order Opiliones from the Southern Continents. London, Proc. Zool. Soc., 1902, 2, 1903, (392-413, with 6 text-figs.).

## l ATLANTIC.

## lb AZORES: CANARIES: MADEIRA: CAPE VERDE.

**Scharf, R. F.** Some remarks on the Atlantis problem. Dublin, Proc. R. Irish Acad., 24, B, 1903, (268-302, 2 figs.). [Distribution of Arachnida, (291-292)].

## 3031 TAXONOMY AND SYSTEMATIC.

## GENERAL.

**Jacot, [E.].** Étude sur les arachnides. Fragment d'entomologie. Messenger Suisse Rom., Fribourg, 16, 1903, (45, 54, 68-69).

**Pocock, R. I.** Arachnida. Nat. Hist., Sokotra, 1903, (175-208, pl. XIV, XXVI figs. 1-4a, 2 text-figs.).

**Purcell, W. F.** On the scorpions, Solifugae, and a trap-door spider collected by the Rev. Henri A. Junod at Shilouvane, near Leydsdorp, in the Transvaal. Nov. Zool., Tring, 10, 1903, (303-306, 2 text-figs.).

**Sainte-Claire Deville, J.** Exploration entomologique des grottes des Alpes-Maritimes. Paris, Ann. soc. ent., 71, 1902, [1903], (695-709, av. fig.).

**Simon, E.** Études arachnologiques (33<sup>e</sup> Mémoire). l.c. (2<sup>e</sup> semest.), (719-736).

Études arachnologiques (34<sup>e</sup> Mémoire). l.c. 72, (2<sup>e</sup> semest.), 1903, (304-314).

## SCORPIONIDA.

## GENERAL.

**Bachmann, [F. E.].** Tödliche Verletzungen durch südafrikanische Scorpione. Verh. Ges. D. Natf., Leipzig, 73, (1901), II, 2, 1902, (584-587).

**Birulla, A. A.** Beiträge zur Kenntniss der Scorpionenfauna Ostpersiens (II. Beitrag). St. Peterburg, Bull. Ac. Sc., (5), 19, No. 24, 1903, (67-80).

Bemerkungen über einige neue oder wenig bekannte Scorpionenformen Nord-Afrikas. l.c. No. 3, 1903, (105-113).

**Birulla, A. A.** Note sur la distribution géographique de quelques scorpions du Caucase. (Russ.) St. Petersburg, Ann. Mus. zool. Ac. Sc., **8**, 1903, (XVII-XIX).

**Bréhon.** Résistance vitale d'un scorpion. Chalon-sur-Saône, Bul. soc. sci. nat., (n. sér., **9**), **29**, 1903, (130).

**Dahl, F.** Wird der Skorpion durch seinen Stich dem Menschen gefährlich? Natw. Wochenschr., Jena, **19**, 1903, (97-99).

**Poljanaky, J.** Zur Embryologie des Skorpions. (Dotter und Embryonalhüllen). Zool. Anz., Leipzig, **27**, 1903, (49-58).

**Schweizerbarth, [E.] von.** Skorpionen. Natur und Haus, Dresden, **11**, 1903, (121-122).

## SPECIAL.

*Butheolus glabrifrons* n. sp. Nordost-Afrika. **Kraepelin, K.** Zool. Jahrb., Jena, Abt. f. Syst., **18**, 1903, (564).

*Buthus deserticola* n. sp. Algier. **Birulla, A. A.** St. Petersburg, Bull. Ac. Sc., (5 F.), **19**, No. 3, 1903, (105-113).

— *palpator* n. sp. Ostpersien. **Birulla, A. A.** l.c. No. 2, 1903, (67-80).

*Euscorpium italicus*, centri nervosi sottointestinali. **Police, G.** Napoli, Boll. Soc. Nat., **15**, (1901), 1902, (1-24, con tav.).

*Hemibuthus zarudnyi* n. sp. Ostpersien. **Birulla, A. A.** St. Petersburg, Bull. Ac. Sc., (5 F.), **19**, No. 20, 1903, (67-80).

*Hemiscorpion persicum* n. sp. Ostpersien. **Birulla, A. A.** l.c. (67-80).

*Heteroscorpion* n. gen. *H. madagascarense* n. sp. Madagascar. (Russ.) **Birulla, A. A.** St. Petersburg, Ann. Mus. zool. Ac. Sc., **8**, 1903, (X-XI).

*Nebo hierichonticus: pallidimanus* n. subsp. Yemen. **Pocock, R. I.** Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (214).

## PEDIPALPI.

## GENERAL.

**Nosek.** Verzeichniss der Pseudoscorpioniden. (Böhmisch) Prossnitz, Věstn. kl. přírod., **1901**, (43).

**Tullgren, A.** Chelonethi from Cameroon in Westafrika collected by Dr. Yngve Sjöstedt. Entomol. Tidskr., Stockholm, **22**, 1901, (97-101, with pl.).

## SPECIAL.

*Heterophrynus elaphus* n. sp. **Pocock, R. I.** Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (220-222).

*Telyphonus* de Java, organes excréteurs et la phagocytose éliminatrice. **Davydov, K. N.** St. Petersburg, Bull. Ac. Sc., (5 F.), **18**, 1903, (201-206).

— *caudatus* (L). **Schminkewitsch, W.** Zool. Anz., Leipzig, **26**, 1903, (665-685); [abstract], London, J. R. Microsc. Soc., **1903**, (41).

## ARANEIDA.

## GENERAL.

**Banks, N.** Secondary sexual characters in spiders. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (104-107).

**Bösenberg, W.** Die Spinnen Deutschlands, V. Zoologica, Stuttgart, Heft **35v** (= Bd 14, Lfg 5/6), 1903, (I-V, 385-465, mit 7 Taf.).

**Cambridge, F. O. P.** On new and rare British spiders. Dorchester, Proc. Dorset Nat. Hist. F. Cl., **24**, 1903, (149-171, pl. A).

— A revision of the genera of the Araneae or spiders, with reference to their type species. [Sixth instalment.] Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (481-495).

— Arachnida Araneida II. Biol. Centr.-Amer., London, **1903**, (425-440, pls. XI-XLI, 441-448, pl. XLII, 449-464, pls. XLIII-XLIV).

— List of the Araneidae or spiders of the Channel Islands. Rep. Guernsey Soc. Nat. Sci., 1902 (1903), (141-144).

**Dahl, F.** Ueber abgebrochene Copulationsorgane männlicher Spinnen im Körper der Weibchen. Berlin, SitzBer. Ges. natf. Freunde, **1902**, (36-45).

— Ueber Stufenfänge echter Spinnen am Riesengebirge. (Eine vergleichend ethologische Studie.) l.c. (185-203, mit Tab.).

**Dahl, F.** Berichtigungen zu dem Vortrag über Stufenfänge echter Spinnen am Riesengebirge. *I.c.* **1903**, (183-184).

**Deventer, W. van.** Insecten- (auch Spinnen-) eier . . . auf Zuckerrohr. (Holländisch) Arch. Java Suiker., Soerabaia, **11**, 1903, (437-446, 2 Taf.).

**Fabre, J. H.** Exode des araignées. Louvain (Imprimerie Polleunis et Centerrick), 1903, (25).

**Favier, abbé C.** Observation à propos d'une araignée de Madagascar. Paris, Ann. Soc. ent., **71**, 1902, (488-498, av. pl.).

**Hogg, H. R.** On the Australasian spiders of the sub-family *Sparassinae*. London, Proc. Zool. Soc., **1902**, 2, 1903, (414-466, 20 text-figs.).

**Montgomery, T. H., jun.** Studies on the habits of spiders, particularly those of the mating period. [With bibliography]. Philadelphia, Pa., Proc. Acad. Nat. Sci., **55**, 1903, (59-149, with pl.).

**Nosek, A.** Bestimmungsschlüssel der Araneidengattungen Mitteleuropas. (Böhmisch) Prossnitz, Věstn. kl. Pířirod., **1903**, (54, mit 2 Taf.).

**Patterson, A. J.** The spinner family . . . with drawings in the text by Bruce Horsfall. Chicago (A. C. McClurg & Co.), 1903, (ix + 15-159, with illustr.).

**Pocock, R. I.** On the geographical distribution of spiders of the order Mygalomorphae . . . [Also on distribution of some Arachnomorphae]. London, Proc. Zool. Soc., **1903**, 1, (340-368, with 4 text-figs.).

**Rainbow, W. J.** Studies on Australian Araneidae. No. 1. Sydney, N.S.W., Rec. Austr. Mus., **5**, 1903, (63-66, with 2 text-figs.).

**Smith, F. P.** Notes on the spiders . . . Epping Forest. Stratford, Essex Nat., **13**, 1903, (22-23, 49-60, pls. IV, V).

**Strand, E.** Our spiders. (Norw.) Bergen, Naturen, **27**, 1903, (180-191).

## SPECIAL.

*Acanthodon* nn. spp. S. Africa. **Purcell, W. F.** Cape Town, Ann. S. Afric. Mus., **3**, 1903, (87-91).

(N 2-905j)

*Acanthoscurria* nn. spp. South America. **Pocock, R. I.** Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (86-90).

*Acropholius* n. gen., *A. mathiauzi*, *A. alluaudi* nn. spp. **Simon, E.** Bul. Muséum, Paris, **1902**, (595-599).

*Admetina bitaeniata* n. sp. **Simon, E.** Bruxelles, Ann. Soc. ent. Belgique, **46**, 1902, (28).

*Aelurillus cristatopalpus* n. sp. **Simon, E.** *I.c.* (36-37).

*Aganippe occidentalis* n. sp. Australia. **Hogg, H. R.** Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (309-311, 2 text-figs.).

*Agelena Walch*, type *A. labyrinthica* Clerck. **Cambridge, F. O. P.** *I.c.* **12**, 1903, (493).

*pusilla* n. sp. **Pocock, R. I.** Nat. Hist. Sokotra, **1903**, (193).

*Agorius formicinus* n. sp. **Simon, E.** Paris, Ann. soc. ent., **72**, (2<sup>e</sup> semest.), 1903, (307).

*Alcimochthes melanophthalmus* n. sp. **Simon, E.** *I.c.* **71**, (2<sup>e</sup> semest.), 1902, [1903], (726).

*Alcimochthes* n. gen. *A. gounellei* n. sp. **Simon, E.** Bruxelles, Ann. Soc. ent. Belgique, **46**, 1902, (53).

*Almota* n. gen., *A. quini* n. sp. **Peckham, G. W.** and **Peckham, E. G.** Madison, Trans. Wis. Acad. Sci., **14**, (1902), 1903, (193-194).

*Anaptomecus* n. gen., *A. longiventris* n. sp. **Simon, E.** Bruxelles, Ann. Soc. ent. Belgique, **47**, 1903, (27-28).

*Ancylotrypa pusilla* n. sp. Cape Colony. **Purcell, W. F.** Cape Town, Ann. S. Afric. Mus., **3**, 1903, (27).

*Angaeus lenticulosus* n. sp. **Simon, E.** Paris, Ann. soc. ent., **71**, (2<sup>e</sup> semest.), 1902, [1903], (729).

*Anomalomma* un. spp. S. Africa. **Purcell, W. F.** Cape Town, Ann. S. Afric. Mus., **3**, 1903, (109, 110, pl. VIII, figs. 1, 2).

*Anyphaena gracilipes* n. sp. **Hayti, Banks, N.** Philadelphia, Pa., Proc. Acad. Nat. Sci., **55**, 1903, (340-345).

*Aphycoschema* n. gen., *A. hygrophila* n. sp. **Simon, E.** Paris, Bul. soc. ent., **1902**, (240-243).



*Apyre* nn. spp. **Simon**, E. *Bul. Museum, Paris*, 1903, (134-135).

*Aranea purpurescens*, secondary sexual characters. **Cambridge**, F. O. P. *Ann. Mag. Nat. Hist.*, London, (Ser. 7), 11, 1903, (59-60).

*Arbanitis maculipes* n. sp. Australia. **Hogg**, H. R. *l.c.* (311-312, 1 text-fig.).

*Archemorus curtulus* n. sp. **Simon**, E. *Bruxelles, Ann. Soc. ent. Belgique*, 47, 1902, (27).

*Argyroneta aquatica*. **Reitmayer**, C. A. *Bl. Aquarienkunde, Magdeburg*, 14, 1903, (30-32).

*Ariamnes campietratus* n. sp. **Simon**, E. *Paris, Ann. soc. ent.*, 71, (2<sup>e</sup> semest.), 1902, [1903], (720).

*Arrecherus* **Simon**, type *A. monoceros* **Wid.** **Cambridge**, F. O. P. *Ann. Mag. Nat. Hist.*, London, (Ser. 7), 11, 1903, (33).

*Artoria fascicularis* n. sp. S. Africa. **Purcell**, W. F. *Cape Town, Ann. S. Afric. Mus.*, 3, 1903, (133).

*Ashtabula* nn. spp. **Simon**, E. *Bruxelles, Ann. Soc. ent. Belgique*, 46, 1902, (31-32).

*Atrophothele* n. gen., *A. socotrana* n. sp. **Pocock**, R. I. *Nat. Hist. Sokotra*, 1903, (183-184).

*Altus* **Walck**, type *A. pubescens* **Fabricius**. **Cambridge**, F. O. P. *Ann. Mag. Nat. Hist.*, London, (Ser. 7), 12, 1903, (489-490).

*Atypus*, type *A. subterraneus* (**Roemer**). **Cambridge**, F. O. P. *Ann. Mag. Nat. Hist.*, London, (Ser. 7), 12, 1903, (481).

*Aricularia minatrix* n. sp. Venezuela. **Pocock**, R. I. *l.c.* 11, 1903, (81-82).

*Avitus longidens* n. sp. **Simon**, E. *Bruxelles, Ann. Soc. ent. Belgique*, 46, 1902, (30).

*Ballus depressus*, Mimicry von *Strophosomus capitatus*. **Dahl**, F. *Berlin, SitzBer. Ges. natf. Freunde*, 1903, (273-278).

*Baryphas* nn. spp. **Simon**, E. *Bruxelles, Ann. Soc. ent. Belgique*, 46, 1902, (42-43).

*Bassaniodes* n. gen., *B. socotrensia* n. sp. **Pocock**, R. I. *Nat. Hist. Sokotra*, 1903, (198).

*Batesiella* n. gen., *B. erinita* n. sp. Cameroons. **Pocock**, R. I. *Ann. Mag. Nat. Hist.*, London, (Ser. 7), 11, 1903, (258-259).

*Bathyphantes*, *B. longipes* **Menge**. **Cambridge**, F. O. P. *l.c.* (34-35).

*Basia annamita* n. sp. **Simon**, E. *Paris, Ann. soc. ent.*, 71, (2<sup>e</sup> semest.), 1902, [1903], (730).

— *thorelli* n. sp. **Simon**, E. *Bruxelles, Ann. Soc. ent. Belgique*, 46, 1902, (24-25).

*Bianor biocellus* n. sp. **Simon**, E. *l.c.* (33).

— *rusticulus* n. sp. S. Africa. **Peckham**, G. W. and **Peckham**, E. G. *Madison, Trans. Wis. Acad. Sci.*, 14, (1902), 1903, (215).

*Blaisea* n. gen., *B. lyrata* n. sp. **Simon**, E. *Paris, Ann. soc. ent.*, 71, (2<sup>e</sup> semest.), 1902, [1903], (722-733).

*Bolephyphantes*, type *B. index* (**Thor.**) **Cambridge**, F. O. P. *Ann. Mag. Nat. Hist.*, London, (Ser. 7), 11, 1903, (49).

*Bolostromus riveti* n. sp. **Simon**, E. *Paris, Ann. soc. ent.*, 72, (2<sup>e</sup> semest.), 1903, (304-314).

*Brachionopus* nn. spp. S. Africa. **Purcell**, W. F. *Cape Town, Ann. S. Afric. Mus.*, 3, 1903, (105).

*Brachycentrum*, type *B. elongatum* (**Wid.**) **Cambridge**, F. O. P. *Ann. Mag. Nat. Hist.*, London, (Ser. 7), 11, 1903, (47).

*Brachypelma* **Sim.**, description of genus. Central America. **Pocock**, R. I. *l.c.* (102-103).

*Calathotarsus* n. gen., *C. coronatus* n. sp. **Simon**, E. *Bruxelles, Ann. Soc. ent. Belgique*, 47, 1903, (21).

*Calommata simoni* n. sp. Cameroons. **Pocock**, R. I. *Ann. Mag. Nat. Hist.*, London, (Ser. 7), 11, 1903, (259).

*Camarius pulchellus* n. sp. **Simon**, E. *Paris, Ann. soc. ent.*, 71, (2<sup>e</sup> semest.), 1902, [1903], (727).

*Centromeria*, type *C. bicolor* (**Blackw.**) **Cambridge**, F. O. P. *Ann. Mag. Nat. Hist.*, London, (Ser. 7), 11, 1903, (50).

*Centromerus*, type *C. sylvaticus* (**Blackw.**) **Cambridge**, F. O. P. *l.c.* (46).

- Ceratina*, type *C. brevis*. (Wid.).  
**Cambridge**, F. O. P. *l.c.* (36).
- Ceratinella*, type *C. brevis*, (Wid.).  
**Cambridge**, F. O. P. *l.c.* (44).
- Ceratinopsis*, type *C. interphes*, (O. P. Cambr.). **Cambridge**, F. O. P. *l.c.* (45).
- Cerceis*, type *C. prominens* (Westring).  
**Cambridge**, F. O. P. *l.c.* (34).
- Cestotrema* n. gen., *C. bastardi* n. sp.  
**Simon**, E. *Bul. Muséum, Paris*, 1903, (595-599).
- Chasidamna* nn. spp. **Simon**, E. Bruxelles, *Ann. Soc. ent. Belgique*, 46, 1902, (50-53).
- Chiracanthium socotrense* n. sp.  
**Pocock**, R. I. *Nat. Hist., Sokotra*, 1903, (195).
- Chresiona* n. gen., *C. nigronigata*, *C. convexa*, *C. quadrilineata*, *C. albescens* nn. spp. **Simon**, E. Bruxelles, *Ann. Soc. ent. Belgique*, 47, 1903, (36-37).
- Cicurina*, type *C. cicur* Menge. **Cambridge**, F. O. P. *Ann. Mag. Nat. Hist., London*, (Ser. 7), 11, 1903, (43).
- Citharoseelus* nn. spp. South America.  
**Pocock**, R. I. *l.c.* (99-102).
- Clothe* Walck, type *C. durandi* Walck. **Cambridge**, F. O. P. *l.c.* 12, 1903, (495).
- Clytaetra thise* n. sp. **Simon**, E. Bruxelles, *Ann. Soc. ent. Belgique*, 47, 1903, (24).
- Codeta bouchardi* n. sp. **Simon**, E. Paris, *Ann. soc. ent.*, 72, (2<sup>e</sup> semest.), 1903, (305).
- Coelossia trituberculata* n. sp. **Simon**, E. *Bul. Muséum, Paris*, 1903, (139).
- Copa lineata* n. sp. **Simon**, E. *l.c.* (138).
- Coprocossa bimaculata* n. sp. S. Africa. **Peckham**, G. W. and **Peckham**, E. G. *Madison, Trans. Wis. Acad. Sci.*, 14, 1902, [1903], (187).
- *harpina* n. sp. **Simon**, E. Paris, *Ann. soc. ent.*, 72, (2<sup>e</sup> semest.), 1903, (306).
- Cornicularia*, type *C. unicornis* (O. P. Cambr.). **Cambridge**, F. O. P. *Ann. Mag. Nat. Hist., London*, (Ser. 7), 11, 1903, (41).
- Coryssiphus* n. gen., *C. praeusta*, *C. cinerascens*, *C. unicolor* nn. spp. Cape of Good Hope. **Simon**, E. Bruxelles, *Ann. Soc. ent. Belgique*, 47, 1903, (30-32).
- *Cosmophasis australis* n. sp. **Simon**, E. *l.c.* 46, 1902, (25-26).
- *longiventris* n. sp. **Simon**, E. Paris, *Ann. soc. ent.*, 71, (2<sup>e</sup> semest.), 1902, [1903], (732).
- *umbratica* n. sp. **Simon**, E. *l.c.* 72, (2<sup>e</sup> semest.), 1903, (308).
- Crustulina*, type *C. guttata* (Wider). **Cambridge**, F. O. P. *Ann. Mag. Nat. Hist., London*, (Ser. 7), 11, 1903, (36).
- Ctenium*, type *C. pingue* (Westring). **Cambridge**, F. O. P. *l.c.* (43).
- Ctenus* Walck, type *C. dubius* Walck. **Cambridge**, F. O. P. *l.c.* 12, 1903, (488).
- nn. spp. Cameroons.  
**Pocock**, R. I. *l.c.* 11, 1903, (262-264).
- Cybele haytiensis* n. sp. Hayti. **Banks**, N. Philadelphia, Pa., *Proc. Acad. Nat. Sci.*, 55, 1903, (344).
- Cyclosa*, type *C. conica* (De Geer). **Cambridge**, F. O. P. *Ann. Mag. Nat. Hist., London*, (Ser. 7), 11, 1903, (35).
- Cyllobelus australis* n. sp. S. Africa. **Peckham**, G. W. and **Peckham**, E. G. *Madison, Trans. Wis. Acad. Sci.*, 14, 1902, [1903], (195).
- Cyphalonotus columnifer* n. sp. **Simon**, E. *Bul. Muséum, Paris*, 1903, (140).
- Cyrba dolata* n. sp. S. Africa. **Peckham**, G. W. and **Peckham**, E. G. *Madison, Trans. Wis. Acad. Sci.*, 14, 1902, [1903], (185).
- Cyrtachenius dentatus* n. sp. Cape Colony. **Purcell**, W. F. Cape Town, *Ann. S. Afric. Mus.*, 3, 1903, (29).
- Cyrtopholis*, description of gen. and spp. 2 nn. spp. South America. **Pocock**, R. I. *Ann. Mag. Nat. Hist., London*, (Ser. 7), 11, 1903, (94-96, 96-98).
- Dendryphantes purcellii* n. sp. S. Africa. **Peckham**, G. W. and **Peckham**, E. G. *Madison, Trans. Wis. Acad. Sci.*, 14, 1902, [1903], (173-278, with pl.).
- Desis crosslandi* n. sp. Zanzibar. **Pocock**, R. I. *London, Proc. Zool. Soc.*, 1902, 2, 1903, (390).

*Diadoecyrtus* n. gen., *D. decorsei* n. sp. Simon, E. Bull. Muséum, Paris, 1902, (595-599).

*Dicymbium* type *D. clavipes* Menge. Cambridge, F. O. P. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (38).

*Dicyphus* type *D. tumidus* Menge. Cambridge, F. O. P. l.c. (40).

*Dimizonops* n. gen., *D. insularis* n. sp. Pocock, R. I. Nat. Hist. Sokotra, 1903, (199).

*Diplocephalus* nn. spp. Cambridge, O. P. Dorchester, Proc. Dorset Nat. Hist. F. Cl., 24, 1903, (155).

*Diplostyla*, type *D. concolor* (Wid.). Cambridge, F. O. P. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (45).

*Dolomedes* nn. spp. Cameroons. Pocock, R. I. l.c. (260-262).

—— *fimbriatus*, Entwicklungs-geschichte, mit besonderer Berücksichtigung der Bildung des Gehirns und der Augen. Pappenheim, P. Zs. wiss. Zool., Leipzig, 74, 1903, (109-154, mit 2 Taf.).

*Donuea* n. gen., *D. decorsei* n. sp. Simon, E. Bul. Muséum, Paris, 1903, (138).

*Drapeta*, type *D. aeneus* Menge. Cambridge, F. O. P. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (43).

*Drapetisca*, type *D. socialis* (Sundevall). Cambridge, F. O. P. l.c. (36).

*Drassus* Walck, type *D. lucifugus* Walck. Cambridge, F. O. P. l.c. 12, 1903, (493).

*Drepanodus*, type *D. obscurus* Menge. Cambridge, F. O. P. l.c. (42).

*Ectanostieta australis* n. sp. Simon, E. Paris, Bul. soc. ent., 1902, (240-243).

*Elaphidion*, type *E. flagelliferum* Menge. Cambridge, F. O. P. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (40-41).

*Elaphipus*, type *E. flagellifer* Menge. Cambridge, F. O. P. l.c. (41).

*Emplesiogonus scutulatus* n. sp. Simon, E. Bul. Muséum, Paris, 1903, (134).

*Entypeza* n. gen., *E. nebulosa* n. sp. Simon, E. l.c. 1902, (595-599).

*Eodclena* n. gen., *E. spenceri* n. sp. Australia. Hogg, H. R. London, Proc. Zool. Soc., 1902, 2, 1903, (464-465).

*Epethinula* n. gen., *E. minutissima* n. sp. Simon, E. Bruxelles, Ann. Soc. ent. Belgique, 47, 1903, (27-28).

*Epeira* Walck, type *E. apodisa* Walck. Cambridge, F. O. P. l.c. 12, 1903, (494).

*Ephebopus fossor* n. sp. Ecuador. Pocock, R. I. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (85).

*Epidius brevipalpus* n. sp. Simon, E. Paris, Ann. soc. ent., 71, (2<sup>e</sup> semest.), 1902, [1903], (730).

*Episinus* Walck, type *E. truncatus*, Walck. Cambridge, F. O. P. l.c. (495).

*Erasinus flavibarbis* n. sp. Simon, E. Bruxelles, Ann. Soc. ent., Belgique, 46, 1902, (50).

*Eresus* Walck, type *E. cinnabarinus* Olivier. Cambridge, F. O. P. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (489).

*Erigonella*, type *E. hiemalis* (Blackw.). Cambridge, F. O. P. l.c. 11, 1903, (49).

*Euophrys* nn. spp. S. Africa. Peckham, G. W. and Peckham, E. G. Madison, Trans. Wis. Acad. Sci., 14, 1902, [1903], (201-204).

*Euryopsis*, type *E. flavomaculata* (Koch, C. L.). Cambridge, F. O. P. l.c. (36).

*Eustichothrix*, type *E. obscurus* (Blackw.). Cambridge, F. O. P. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (46).

*Etagnus atropurpureus* n. sp. S. Africa. Purcell, W. F. Cape Town, Ann. S. Afric. Mus., 3, 1903, (106).

*Etarcha heteropogon* n. sp. Simon, E. Paris, Ann. Soc. ent., 71, (2<sup>e</sup> semest.), 1902, [1903], (719-736).

*Firmicus duriusculus* n. sp. Simon, E. Paris, Ann. soc. ent., 71, (2<sup>e</sup> semest.), 1902, [1903], (728).

*Foreythula* n. gen., *F. majori* n. sp. Madagascar. Pocock, R. I. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (223-225).

*Galeosoma* n. gen., *G. scutatum* n. sp. S. Africa. Purcell, W. F. Cape Town, Ann. S. Afric. Mus., 3, 1903, (92).

*Gasteracantha* nn. spp. Simon, E. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (301-303).

*Genysochoera* n. gen., *G. decorsei* n. sp. Simon, E. Bul. Muséum, Paris, 1902, (595-599).

*Gnaphosa* Latreille, type *G. lapidosa* (Walck.). Cambridge, F. O. P. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (485-486).

*Gonatium*, type *G. cheliferrum* (Wider). Cambridge, F. O. P. l.c. 11, 1903, (37).

*Gongylidium*, type *G. nigricans* Menge. Cambridge, F. O. P. l.c. (37).

*Goryrella schreineri* n. sp. Cape Colony. Purcell, W. F. Cape Town, Ann. S. Afric. Mus., 3, 1903, (25, pl. I, figs. 3-4).

*Grammonota*, type *G. pictilis* (O. P. Cambridge). Cambridge. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (45).

*Habrocestum* nn. spp. S. Africa. Peckham, G. W. and Peckham, E. G. Madison, Trans. Wis. Acad. Sci., 14, 1902, [1903], (238-241).

*Hadrotarsus*, systematic position of the genus. Pocock, R. I. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (619-621, 4 text-figs.).

*Hapalopus pictus* n. sp. Peru. Pocock, R. I. l.c. (110-111).

*Harmonicon riveti* n. sp. Simon, E. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (314).

*Harpactira baviana* n. sp. Cape Colony. Purcell, W. F. Cape Town, Ann. S. Afric. Mus., 3, 1903, (30, pl. 1, fig. 9).

*Harpactirella* nn. spp. S. Africa. Purcell, W. F. l.c. (101-103).

*Hebestatis* n. gen. Simon, E. Bruxelles, Ann. Soc. ent. Belgique, 47, 1903, (21).

*Heligomerus caffer* n. sp. Transvaal. Purcell, W. F. Nov. Zool., Tring, 10, 1903, (305-306).

*Heliophanus* nn. spp. S. Africa. Peckham, G. W. and Peckham, E. G. Madison, Trans. Wis. Acad. Sci., 14, 1902, [1903], (189-193).

— *peckhami* n. sp. Simon, E. Bruxelles, Ann. Soc. ent. Belgique, 46, 1902, (26).

*Helophora*, type *H. pallescens* (Westr.). Cambridge, F. O. P. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (35).

*Hemiphantes*, type *H. arcticus* Strand. Cambridge, F. O. F. l.c. (49).

*Heressus* n. gen., *H. decorsei* n. sp. Simon, E. Bul. Muséum, Paris, 1903, (136).

*Hermacha* nn. spp. S. Africa. Purcell, W. F. Cape Town, Ann. S. Afric. Mus., 3, 1903, (99).

*Hermachastes* nn. spp. S. Africa. Purcell, W. F. l.c. (97).

*Hesydrus*, description of species. South America. Cambridge, F. O. P. London, Proc. Zool. Soc., 1903, 1, (164-165, pl. XV, figs. 21-25).

*Heteropoda blaisei* n. sp. Simon, E. Paris, Ann. soc. ent., 71, (2 semest.), 1902, [1903], (721).

— *keyserlingi* n. sp. Queensland. Hogg, H. R. London, Proc. Zool. Soc., 1902, 2, 1903, (416-418, 20 text-figs.).

*Hispo alboguttata* n. sp. Simon, E. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (306).

*Holocnemus labyrinthi* n. sp., Creta. Kulczyński, W. Kraków, Bull. Intern. Acad., 1903, (32-58, with 1 pl.).

*Homalattus* nn. spp. S. Africa. Peckham, G. W. and Peckham, E. G. Madison, Trans. Wis. Acad. Sci., 14, 1902, [1903], (218-219).

— *coriaceus* n. sp. Simon, E. Bruxelles, Ann. Soc. ent. Belgique, 46, 1902, (34).

*Homoeomma* Auss., description of genus and spp. South America. Pocock, R. I. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (111-112).

*Hyllus* nn. spp. S. Africa. Peckham, G. W. and Peckham, E. G. Madison, Trans. Wis. Acad. Sci., 14, 1902, [1903], (208-210).

*Hypomma*, type *H. bifrons* (Blackw.). Cambridge, F. O. P. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (47).

*Hypselomma*, type *H. acuminata* (Wid.) Cambridge, F. O. P. l.c. (48).

*Hypeithylla* n. gen., *H. linearis* n. sp. Madagascar. Simon, E. Bruxelles, Ann. Soc. ent. Belgique, 47, 1903, (38).

*Icius separatus* n. sp. Hayti. Banks, N. Philadelphia, Pa., Proc. Acad. Sci., 55, (340-345).

*Idiocaira* n. gen., *I. transversa*, *I. triquetra* nn. spp. Natal. **Simon**, E. Bruxelles, Ann. Soc. ent. Belgique, **47**, 1903, (26).

*Illipula* n. gen., *I. anguicula* n. sp. **Simon**, E. l.c. (39).

*Irrura mandarina* n. sp. **Simon**, E. Paris, Ann. soc. ent., **71**, (2<sup>e</sup> semest.), 1902, [1903], (735).

*Isaloides toussaintii* n. sp. Hayti. **Banks**, N. Philadelphia, Pa., Proc. Acad. Nat. Sci., **55**, 1903, (340-345).

*Isopeda* nn. spp., and many old species, Australia. **Hogg**, H. R. London, Proc. Zool. Soc., **1902**, 2, 1903, (430-451).

*Kima variabilis* n. sp. S. Africa. **Peckham**, G. W. and **Peckham**, E. G. Madison, Trans. Wis. Acad. Sci., **14**, 1902, [1903], (253).

*Klamathia* n. gen., *K. flava* n. sp. S. Africa. **Peckham**, G. W. and **Peckham**, E. G. l.c. (230-231).

*Langona avara* n. sp. S. Africa. **Peckham**, G. W. and **Peckham**, E. G. l.c. (241).

*Laseola jucunda* n. sp. **Cambridge**, O. P. Dorchester, Proc. Dorset Nat. Hist., F. Cl., **24**, 1903, (152).

*Latrodectus* Walck, type *L. tredecimguttatus* (Rossi). **Cambridge**, F. O. P. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (405).

— nn. spp. **Dahl**, F. Berlin, SitzBer. Ges. natf. Freunde, **1902**, (36-45).

— *malmignatus* Walk., die Lympe als Heilmittel beim Biss. **Sterbina**, A. Trd. B. entom. Ucen. Kom. M. Zeml., St. Peterburg, **IV**, No. 4, 1903, (28, mit 4 fig. u. 5 Diagr.).

*Leptyphantes*, type *L. muscicola* Menge. **Cambridge**, F. O. P. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (36).

— *acceptus* n. sp. **Cambridge**, O. P. Dorchester, Proc. Dorset Nat. Hist. F. Cl., **24**, 1903, (153).

*Leptothrix*, type *L. clavipes* Menge. **Cambridge**, F. O. P. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (42).

*Lethia*, type *L. varia* Menge. **Cambridge**, F. O. P. l.c. (42).

*Leucauge* nn. spp. **Cambridge**, F. O. P. Biol. Centr.-Amer., London, **1903**, (440-442).

*Linyphia lehmanni* n. sp. **Simon**, E. Paris, Ann. soc. ent., **72**, 2<sup>e</sup> semest. 1903, (311).

*Lophocarenum*, type *L. stramineum* Menge. **Cambridge**, F. O. P. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (38).

*Lophomma*, type *L. stictcephalum* Menge. **Cambridge**, F. O. P. l.c. (39-40).

*Lycosa* Latreille, type *L. lugubris* (Walck.). **Cambridge**, F. O. P. l.c. **12**, 1903, (483-485).

— nn. spp. Cape Colony. **Purcell**, W. F. Cape Town, Ann. S. Afric. Mus., **3**, 1903, (35, 38, 39).

— nn. spp. S. Africa. **Purcell**, W. F. l.c. (119-128, pl. VIII, figs. 12-19).

*Macopaeus madagascarensis* n. sp. S. Africa. **Peckham**, G. W. and **Peckham**, E. G. Madison, Trans. Wis. Acad. Sci., **14**, 1902, [1903], (182).

*Macrargus*, type *M. rufus* (Wider.). **Cambridge**, F. O. P. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (46).

*Macrothele cretica* n. sp. Creta. **Kulczynski**, W. Kraków, Bull. Intern. Acad., **1903**, (35, 1 pl.).

*Margaromma* nn. spp. **Simon**, E. Bruxelles, Ann. Soc. ent. Belgique, **46**, 1902, (35-36).

*Marpesia*, type *M. arenicola* Menge. **Cambridge**, F. O. P. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (44).

*Massagris mirificus* n. sp. S. Africa. **Peckham**, G. W. and **Peckham**, E. G. Madison, Trans. Wis. Acad. Sci., **14**, 1902, [1903], (186).

*Mecostrabus* n. gen., *M. aciculus* n. sp. **Simon**, E. Paris, Ann. soc. ent., **71**, (2<sup>e</sup> semest.), 1902, [1903], (726-727).

*Mecynogea* n. gen., *M. bigibba*, *M. tucumana* nn. spp. **Simon**, E. Bruxelles, Ann. soc. ent. Belgique, **47**, 1903, (25).

*Mendoza carlinii* n. sp. S. Africa. **Peckham**, G. W. and **Peckham**, E. G. Madison, Trans. Wis. Acad. Sci., **14**, 1902, [1903], (204).

*Mengea* n. nom for *Pedina*, type *M. scopigera* Grube. Cambridge, F. O. P. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (35).

*Mesilla* n. gen., *M. vittiventris* n. sp. Ecuador. Simon, E. Bruxelles, Ann. Soc. ent. Belgique, 47, 1903, (30).

*Metacryba pictipes* n. sp. Hayti. Banks, N. Philadelphia. Pa., Proc. Acad. Nat. Sci., 55, 1903, (343).

*Metriopelma* nn. spp. Ecuador, Trinidad. Pocock, R. I. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (113-115).

*Mezcala elegans* n. sp. S. Africa. Peckham, G. W. and Peckham, E. G. Madison, Trans. Wis. Acad. Sci., 14, 1902, [1903], (247).

*Micrargus*, type *M. herbigradus* (Blackw.). Cambridge, F. O. P. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (46).

*Microctenonyx*, type *M. subitaneus* (O. P. Cambr.). Cambridge, F. O. P. l.c. (47).

*Micromata* Latreille, type *M. accentuata* Walck. Cambridge, F. O. P. l.c. 12, 1903, (486-488).

*Microneta*, type *M. quiesquiliarum* (Westr.). Cambridge, F. O. P. l.c. 11, 1903, (41-42).

*Minotauria* n. gen., *M. attemsi* sp. Creta. Kulczyński, W. Kraków, Bull. Intern. Acad., 1903, (39).

*Missulena* Walckenaer, type *M. occatoria* Walck. Cambridge, F. O. P. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (488).

*Modunda aperta* n. sp. S. Africa. Peckham, G. W. and Peckham, E. G. Madison, Trans. Wis. Acad. Sci., 14, 1902, [1903], (210).

*Moebelia*, type *M. penicillata* (Westr.). Cambridge, F. O. P. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (48).

*Moggridgea* nn. spp. S. Africa. Purcell, W. F. Cape Town, Ann. S. Afric. Mus., 3, 1903, (68, 71).

— nn. spp. Simon, E. Bruxelles, Ann. Soc. ent. Belgique, 47, 1903, (22-23).

— *seticoza* n. sp. Cape Colony. Purcell, W. F. Cape Town, Ann. S. Afric. Mus., 3, 1903, (18).

*Monocentropus longimanus* n. sp. Yemen. Pocock, R. I. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (219-220).

*Myrmachne* nn. spp. S. Africa. Peckham, G. W. and Peckham, E. G. Madison, Trans. Wis. Acad. Sci., 14, 1902, [1903], (249-250).

*Myro maculatus* n. sp. Simon, E. Bruxelles, Ann. Soc. ent. Belgique, 47, 1903, (34).

*Myrtale alluaudi* n. sp. Simon, E. Bul. Muséum, Paris, 1903, (133).

*Nemesia arboricola* n. sp. Malta. Pocock, R. I. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (225-226).

*Nemospiza* n. gen., *N. conspicillata* n. sp. Transvaal. Simon, E. Bruxelles, Ann. Soc. ent. Belgique, 47, 1903, (25-26).

*Neosparassus* n. gen., *N. magareyi*, *N. thoracicus* nn. spp. and many o'd species. Hogg, H. R. London, Proc. Zool. Soc., 1902, 2, 1903, (423-429).

*Neottiura*, type *N. bimaculata* (Linn). Cambridge, F. O. P. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (36).

*Nyssus* Walck., type *N. coloripes* Walck. Cambridge, F. O. P. l.c. 12, 1903, (493).

*Odo guttipes* n. sp. Simon, E. Bruxelles, Ann. Soc. ent. Belgique, 47, 1903, (29).

*Oedipus*, type *O. aenescens*. (Simon). Cambridge, F. O. P. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (49).

*Oletera* Walckenaer, type *O. picea* (Sulzer). Cambridge, F. O. P. l.c. 12, 1902, (488).

*Ommatauxesis* n. gen., *O. macrops* n. sp. Tasmania. Simon, E. Bruxelles, Ann. Soc. ent. Belgique, 47, 1903, (37).

*Omoedus piceus* n. sp. Simon, E. l.c. 46, 1902, (35).

*Ordgarius cornigerus*, habits. Hutchinson, C. E. Sci. Amer., New York, N.Y., 89, 1903, (172).

*Oreonetides*, type *O. adipatus* (L. Koch). Cambridge, F. O. P. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (49).

— nn. spp. Germany, Austria. Dahl, F. Berlin, SitzBer. Ges. natf. Freunde, 1902, (185-203).

*Orthobula sicca* n. sp. Madagascar. Simon, E. Bruxelles, Ann. Soc. ent. Belgique, 47, 1903, (34).

*Pachydaetylus*, type *P. pronus* Menge. Cambridge, F. O. P. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (37).

*Padillothorax taprobanicus* n. sp. Simon, E. Bruxelles, Ann. Soc. ent. Belgique, 46, 1902, (24).

*Pamphobetus* nn. spp. South America. Pocock, R. I. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (91-93).

*Panaretus nirounensis* n. sp. Simon, E. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (304).

*Paractenonyx*, type *P. parallelus* (Wid.). Cambridge, F. O. P. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (47).

*Paradosenus* n. gen., *P. nigricans* n. sp. Lower Amazons. Cambridge, F. O. P. London, Proc. Zool. Soc., 1903, 1, (155-156, pl. XIV, figs. 6-9).

*Parajotus* n. gen., *P. obscurifemoratus* n. sp. S. Africa. Peckham, G. W. and Peckham, E. G. Madison, Trans. Wis. Acad. Sci., 14, 1902, [1903], (200-201).

*Paraphysa* Simon, description of genus. Chili. Pocock, R. I. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (103).

*Pardosa* nn. spp. S. Africa. Purcell, W. F. Cape Town, Ann. S. Afric. Mus., 3, 1903, (134-139, pl. VIII, figs. 21-27).

—— *spilota* n. sp. Pocock, R. I. Nat. Hist. Sokotra, 1903, (193).

*Paromastola* n. gen., *P. abernethyi* n. sp. Purcell, W. F. Cape Town, Ann. S. Afric. Mus., 3, 1903, (93-94).

*Partona euchirus* n. sp. Simon, E. Bruxelles, Ann. Soc. ent. Belgique, 46, 1902, (34).

*Patrera* n. gen., *P. fulvastra* n. sp. Ecuador. Simon, E. l.c. 47, 1903, (29-30).

*Pediana* nn. spp. Australia. Hogg, H. R. London, Proc. Zool. Soc., 1902, 2, 1903, (460-462).

*Pedina*, type *P. scopigera* (Grube). Cambridge, F. O. P. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (35).

*Pellenes* nn. spp. S. Africa. Peckham, G. W. and Peckham, E. G. Madison, Trans. Wis. Acad. Sci., 14, 1902, [1903], (235).

*Penestomus* n. gen., *P. planus* n. sp. Simon, E. Paris, Bul. Soc. ent., 1902, (240-243).

*Pensicola* nn. spp. Simon, E. Bruxelles, Ann. Soc. ent. Belgique, 46, 1902, (38-40).

*Pertica* n. gen., *P. badia* n. sp. Simon, E. l.c. 47, 1902, (23-24).

*Pescennina* n. gen., *P. epularis* n. sp. Simon, E. l.c. 47, 1903, (32-33).

*Phalops*, type *P. cornutus* (Wid.). Cambridge, F. O. P. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (40).

*Philaeus manicus* n. sp. S. Africa. Peckham, G. W. and Peckham, E. G. Madison, Trans. Wis. Acad. Sci., 14, 1902, [1903], (205).

*Phlegra imperiosa* n. sp. S. Africa. Peckham, G. W. and Peckham, E. G. l.c. (242).

*Pholcus* Walck., type *P. pluchii* Scopoli. Cambridge, F. O. P. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (494).

*Phormictopus* Poc., description of genus and sp. San Domingo. Pocock, R. I. l.c. 11, 1903, (90).

*Phrynarachne* nn. spp. Simon, E. Bul. Muséum, Paris, 1903, (137).

—— *rothschildi* n. sp. Ceylon. Pocock, R. I. and Rothschild, N. C. London, Proc. Zool. Soc., 1903, 1, (48-51, pl. X).

*Phryxotrichus* Simon, description of genus. South America. Pocock, R. I. l.c. (103).

—— nn. spp. South America. Pocock, R. I. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (104-107).

*Phylloeca*, type *P. sunderalli* (Westr.). Cambridge, F. O. P. l.c. (49).

*Plastonomus* n. gen., *P. octoguttatus* n. sp. Simon, F. Bul. Muséum, Paris, 1903, (134).

*Platyoides grandidieri* n. sp. Simon, E. l.c. (139).

*Platyopis*, type *P. sulcifrons* (Wider). Cambridge, F. O. P. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (37).

*Plesiometa* n. gen. **Cambridge**, F. O. P. Biol. Centr.-Amer., London, 1903, (438).

*Pochyta solers* n. sp. S. Africa. **Peckham**, G. W. and **Peckham**, E. G. Madison, Trans. Wis. Acad. Sci., 14, 1902, [1903], (199).

*Poecilomigas* n. gen., *P. pulchripes* n. sp. Natal. **Simon**, E. Bruxelles, Ann. Soc. ent. Belgique, 47, 1903, (23).

*Poecilorchestes decoratus* n. sp. **Simon**, E. l.c. 46, 1902, (34).

*Polemus* nn. spp. **Simon**, E. l.c. 46, 1902, (43-44).

*Portia durbanii* n. sp. S. Africa. **Peckham**, G. W. and **Peckham**, E. G. Madison, Trans. Wis. Acad. Sci., 14, 1902, [1903], (183).

*Proeippa* n. gen., *P. lightfooti* n. sp. S. Africa. **Purcell**, W. F. Cape Town, Ann. S. Afric. Mus., 3, 1903, (111, pl. VIII, fig. 3).

*Pronopius*, type *P. providus* Menge. **Cambridge**, F. O. P. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (42).

*Prosthesisma cretica* n. sp. Creta. **Kulczyński**, W. Kraków, Bull. Intern. Acad., 1903, (42).

*Prosopotheca* **Simon**, type *P. incisa* (O. P. Cambridge). **Cambridge**, F. O. P. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (33).

*Psalmopoeus* nn. spp. Colombia. **Pocock**, R. I. l.c. (82-84).

*Psammitis*, type *P. sabulosus* Hahn. **Cambridge**, F. O. P. l.c. (43).

*Pseudauzimus* n. gen., *P. reticulatus* n. sp. **Simon**, E. Paris, Bul. soc. ent., 1903, (240-243).

*Pseudicius* nn. spp. S. Africa. **Peckham**, G. W. and **Peckham**, E. G. Madison, Trans. Wis. Acad. Sci., 14, 1902, [1903], (211-212).

nn. spp. **Simon**, E. Bruxelles, Ann. Soc. ent. Belgique, 46, 1902, (27).

*Pseudogonatium*, type *P. fuscomarginatum* Strand. **Cambridge**, F. O. P. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (50).

*Pterartoria* n. gen., *P. caldaria*, *P. fissivittata*, *P. flavolimbata*, *P. polysticta*, *P. sagae*, *P. suberucifera* nn. spp. S. Africa. **Purcell**, W. F. Cape Town,

Ann. S. Afric. Mus., 3, 1903, (112-117, pl. VIII, figs. 5-10).

*Pterinopelma* nn. spp. South America. **Pocock**, R. I. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (108-110).

*Pterotricha* n. nom. **Kulczyński**, W. Kraków, Bull. Intern. Acad., 1903, (44).

*Pyenacantha fuscata* n. sp. **Simon**, E. Bul. Muséum, Paris, 1903, (139).

*Rhene biguttata* n. sp. S. Africa. **Peckham**, G. W. and **Peckham**, E. G. Madison, Trans. Wis. Acad. Sci., 13, 1902, [1903], (221).

——— *flavicomans* n. sp. **Simon**, E. Bruxelles, Ann. Soc. ent. Belgique, 46, 1902, (33).

*Rhitymna fasciolata* n. sp. **Simon**, E. Bul. Muséum, Paris, 1903, (138).

*Rubrius* nn. spp. **Simon**, E. Bruxelles, Ann. Soc. ent. Belgique, 47, 1903, (34-36).

*Runcinia annamita* n. sp. **Simon**, E. Paris, Ann. soc. ent., 71, (2<sup>e</sup> semest.), 1902, [1903], (728).

*Saitis* nn. spp. S. Africa. **Peckham**, G. W. and **Peckham**, E. G. Madison, Trans. Wis. Acad. Sci., 14, 1902, [1903], (196-198).

*Sassacus* nn. spp. **Simon**, E. Bruxelles, Ann. Soc. Ent. Belgique, 46, 1902, (28-30).

*Scartes*, type *S. parvulus* Menge. **Cambridge**, F. O. P. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (44).

*Scotina*, type *S. gracilipes* (Blackwall). **Cambridge**, F. O. P. l.c. (43).

*Senoculus*, species, *S. albidus* n. sp. South America. **Cambridge**, F. O. P. London, Proc. Zool. Soc., 1903, 1, (166-168, pl. XIV, fig. 14).

*Seothyra* n. gen., *S. schreineri* n. sp. Cape Colony. **Purcell**, W. F. Cape Town, Ann. S. Afric. Mus., 3, 1903, (31, 32, pl. 1, figs. 5, 7).

*Singa crevii* n. sp. Hayti. **Banks**, N. Philadelphia, Pa., Proc. Acad. Nat. Sci., 55, 1903, (342).

*Sittacus* nn. spp. S. Africa. **Peckham**, G. W. and **Peckham**, E. G. Madison, Trans. Wis. Acad. Sci., 14, 1902, [1903], (213-214).



*Smermisia tullgreni* n. sp. **Simon**, E. Paris, Ann. Soc. ent., **72**, (2° semest.), 1903, (311).

*Sonoita* n. gen., *S. lightfooti* n. sp. S. Africa. **Peckham**, G. W. and **Peckham**, E. G. Madison, Trans. Wis. Acad. Sci., **14**, 1902, [1903], (184).

*Sparassus* Walck., type *S. viridissimus*. De-Geer. **Cambridge**, F. O. P. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (492).

———— *socotranus* n. sp. **Pocock**, R. I. Nat. Hist. Sokotra, **1903**, (196).

*Sphaerobothria* Karsch, description of genus. Guatemala. **Pocock**, R. I. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (103).

*Sphasus* Walck., type *S. indicus* Walck. **Cambridge**, F. O. P. l.c. **12**, 1903, (488-489).

*Sphingius tristiculus* n. sp. **Simon**, E. Bruxelles, Ann. Soc. ent. Belgique, **47**, 1903, (33).

*Spiracme*, type *S. striata* Menge. **Cambridge**, F. O. P. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (43).

*Spiropalpus*, type *S. spiralis* Emerton. **Cambridge**, F. O. P. l.c. (45).

*Stasimopus* nn. spp. Cape Colony. **Purcell**, W. F. Cape Town, Ann. S. Afric. Mus., **3**, 1903, (19-22, pls. figs. 1-2).

———— nn. spp. S. Africa. **Purcell**, W. F. l.c. (73-83).

*Stegodyphus* sp. notes on commensalism between *Batrachedra stegodyphobius*. **Pocock**, R. I. Ent. Mag., London, **39**, 1903, (167-170).

*Stemonyphantes*, *S. trilineatus* (Linnaeus). **Cambridge**, F. O. P. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (36).

*Stenaelurillus leucogramma* n. sp. **Simon**, E. Bruxelles, Ann. Soc. ent. Belgique, **46**, 1902, (37).

*Stiphidion* n. gen., *S. facetum* n. sp. **Simon**, E. Paris, Bul. soc. ent., **1902**, (240-243).

*Storena* Walck., type *S. cyanea* Walck. **Cambridge**, F. O. P. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (495).

*Stylophora*, type *S. concolor* (Wid.). **Cambridge**, F. O. P. l.c. **11**, 1903, (35).

*Tagulinus histrio* n. sp. **Simon**, E. Paris, Ann. soc. ent. **71**, (2 semest.), 1902, [1903], (725).

*Tasata* n. gen., *T. parcepunctata* n. sp. Argentina. **Simon**, E. Bruxelles, Ann. Soc. ent. Belgique, **47**, 1903, (29).

*Telamonia* nn. spp. **Simon**, E. Paris, Ann. soc. ent., **71**, (2° semest.), 1902, [1903], (721, 731).

———— *aequipes* n. sp. S. Africa. **Peckham**, G. W. and **Peckham**, E. G. Madison, Trans. Wis. Acad. Sci., **14**, 1902, [1903], (188).

———— *leucaspis* n. sp. **Simon**, E. Paris, Ann. soc. ent., **72**, (2° semest.), 1903, (307).

*Tetragnatha* nn. spp., nn. nomm. Mexico. **Cambridge**, F. O. P. Biol. Centr.-Amer., London, **1903**, (431-436).

———— *granti* n. sp. **Pocock**, R. I. Nat. Hist. Sokotra, **1903**, (186-188).

*Textrix cretica* n. sp. Creta. **Kulczyński**, W. Kraków, Bull. Intern. Acad., **1903**, (52).

*Thammaca* nn. spp. **Simon**, E. Bruxelles, Ann. Soc. ent. Belgique, **46**, 1902, (33).

*Thanatus forbesii* n. sp. **Pocock**, R. I. Nat. Hist. Sokotra, **1903**, (199).

———— *vulgaris*: *cretica* n. subsp. Creta. **Kulczyński**, W. Kraków, Bull. Intern. Acad., **1903**, (48).

*Thanatidius spinipes* n. sp. Lower Amazons. **Cambridge**, F. O. P. London, Proc. Zool. Soc., **1903**, 1, (156-157, pl. XIV, figs. 10-12).

*Thaumasia velox* **Simon**, *T. annulipes* n. sp. Lower Amazons. **Cambridge**, F. O. P. l.c. (154, pl. XIV, fig. 1, 2).

*Thelechoris australis* n. sp. S. Africa. **Purcell**, W. F. Cape Town, Ann. S. Afric. Mus., **3**, 1903, (106).

*Theridion* Walck., type *T. redimitum* Linn. **Cambridge**, F. O. P. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (494).

*Theridiosoma blasei* n. sp. **Simon**, E. Paris, Ann. soc. ent., **71**, (2° semest.), 1902, [1903], (720).

*Theridula*, type *T. sphaerula* (Hentz). **Cambridge**, F. O. P. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (44).

*Theridium eigenmanni* n. sp. **Banks** in **Ulrich**, C. J. *Lincoln. Nebr., Trans. Amer. Microsc. Soc.*, **23**, 1901, [1902], (83-100, with pl.).

*Thomisus* Walck., type *T. onustus* Walck. **Cambridge**, F. O. P. *Ann. Mag. Nat. Hist., London, (Ser. 7)*, **12**, 1903, (491).

*Thyene* nn. spp. S. Africa. **Peckham**, G. W. and **Peckham**, E. G. *Madison, Trans. Wis. Acad. Sci.*, **14**, 1902, [1903], (223-230).

———— nn. spp. **Simon**, E. *Bruxelles, Ann. Soc. ent. Belgique*, **46**, 1902 (40).

*Thyenula* n. gen., *T. jutenca* n. sp. **Simon**, E. *l.c.* (41).

*Tmeticus*, type *T. leptocaulis* Menge. **Cambridge**, F. O. P. *Ann. Mag. Nat. Hist., London, (Ser. 7)*, **11**, 1903, (38).

*Tomopisthes aethiops* n. sp. **Simon**, E. *Paris, Ann. soc. ent.*, **72**, (2<sup>e</sup> semest.), 1903, (312).

*Torania scutata* n. sp. Cameroons. **Pocock**, R. I. *Ann. Mag. Nat. Hist., London, (Ser. 7)*, **11**, 1903, (264).

*Trabaea* nn. spp. S. Africa. **Purcell**, W. F. *Cape Town, Ann. S. Afric. Mus.*, **3**, 1903, (130-133, pl. VIII, fig. 20).

*Trachynotus*, type *T. obtusus* (Blackw). **Cambridge**, F. O. P. *Ann. Mag. Nat. Hist., London, (Ser. 7)*, **11**, 1903, (48).

*Trechalea*, description of species and 3 nn. spp. South America. **Cambridge**, F. O. P. *London, Proc. Zool. Soc.*, **1903**, **1**, (157-164, pl. XV).

*Trematocephalus*, type *T. perforatus* (Thor.). **Cambridge**, F. O. P. *Ann. Mag. Nat. Hist., London, (Ser. 7)*, **11**, 1903, (48).

*Tularosa* n. gen., *T. ogdenii* n. sp. S. Africa. **Peckham**, G. W. and **Peckham**, E. G. *Madison, Trans. Wis. Acad. Sci.*, **14**, 1902, [1903] (245-246).

*Typostola* nn. spp. Australia. **Hogg**, H. R. *London, Proc. Zool. Soc.*, **1902**, **2**, 1903, (455-459).

*Uloborus* Latreille, type *U. scalen-aerius* Latreille. **Cambridge**, F. O. P. *Ann. Mag. Nat. Hist., London, (Ser. 7)*, **12**, 1903, (495).

*Utiptellum*, type *U. mirabile* (L. Koch). **Cambridge**, F. O. P. *l.c.* **11**, 1903, (50).

*Valloa* [*Velloa*?] n. gen., *V. modesta*, *V. elegans* nn. spp. South Africa. **Peckham**, G. W. and **Peckham**, E. G. *Madison, Trans. Wis. Acad. Sci.*, **14**, 1902, [1903], (216-218).

*Viciria* nn. spp. S. Africa. **Peckham**, G. W. and **Peckham**, E. G. *l.c.* (232-234).

———— nn. spp. **Simon**, E. *Bruxelles, Ann. Soc. ent. Belgique*, **46**, 1902, (46-49).

———— nn. spp. **Simon**, E. *Paris, Ann. ent. soc.*, **71**, (2<sup>e</sup> semest), 1902, [1903], (719-736).

*Vinnius* nn. spp. **Simon**, E. *Bruxelles, Ann. Soc. ent. Belgique*, **46**, 1902, (44-46).

*Wulfila parvula* n. sp. **Banks**, N. *Philadelphia, Pa., Proc. Acad. Nat. Sci.*, **55**, 1903, (342).

*Xenesthis monstrosus* n. sp. New Granada. **Pocock**, R. I. *Ann. Mag. Nat. Hist., London, (Ser. 7)*, **11**, 1903, (93-94).

*Xysticus hepaticus* n. sp. **Simon**, E. *Bul. Museum, Paris*, **1903**, (135).

*Zophoryctes* n. gen., *Z. flavopilosus* n. sp. **Simon**, E. *l.c.* **1902**, (595-599).

## SOLIFUGAE.

*Blossia echinata* n. sp. Cape Colony. **Purcell**, W. F. *Cape Town, Ann. S. Afric. Mus.*, **3**, 1903, (16, pl. 1, fig. 10).

———— *litoralis* n. sp. S. Africa. **Purcell**, W. F. *l.c.* (4).

*Daesia* nn. spp. Yemen. **Pocock**, R. I. *Ann. Mag. Nat. Hist., London, (Ser. 7)*, **11**, 1903, (217-219, 1 text-fig.).

———— *schreineri* n. sp. S. Africa. **Purcell**, W. F. *Cape Town, Ann. S. Afric. Mus.*, **3**, 1903, (14, pl. 1, fig. 11).

*Galeodes granti* n. sp. Yemen. **Pocock**, R. I. *Ann. Mag. Nat. Hist., London, (Ser. 7)*, **11**, 1903, (215-216).

*Gluvia chapmani* n. sp. Spain. **Pocock**, R. I. *l.c.* (222-223, 1 text fig.).

*Hemerotrecha* n. gen., *H. californica* n. sp. **Banks**, N. *Philadelphia, Pa., Ent. News Acad. Nat. Sci.*, **14**, 1903, (78-79, with text-fig.).

*Lipophaga* n. gen., *L. trispinosa* n. sp. S. Africa. **Purcell**, W. F. *Cape Town, Ann. S. Afric. Mus.*, **3**, 1903, (10-11).

*Melanoblossia* n. gen., *M. braunsi*, *M. globiceps* nn. spp. **Purcell**, W. F. l.c. (6, 8).

*Paragaleodes erlangeri* n. sp. Nord-ost-Afrika. **Kraepelin**, K. Zool. Jahrb., Jena, Abt. f. Syst., **18**, 1903, (557-578).

*Rhagodes* nn. spp. Yemen. **Pocock**, R. I. Ann. Mag. Nat. Hist., London, (Ser. 7), **14**, 1903, (216-217).

*Solpuga* nn. spp. Transvaal. **Purcell**, W. F. Nov. Zool., Tring, **10**, 1903, (304-305, 2 text figs.).

——— *collinita* n. sp. S. Africa. **Purcell**, W. F. Cape Town, Ann. S. Afric. Mus., **3**, 1903, (3).

*Torus* n. gen. for *T. capensis*, **Purc.**: *Ceroma* (olim) *capensis*. **Purcell**, W. F. Cape Town, Ann. S. Afric. Mus., **3**, 1903, (10).

## CHERNETIDA.

### GENERAL.

**Kew**, H. W. North of England Pseudoscorpions. Naturalist, London, **1903**, (293-300, 2 text-figs.).

**Nosek**, A. Übersicht der Pseudoscorpioniden und deren geographische Verbreitung. (Böhmisch) Čáslav, Gymn. Progr., **1901**, (28).

**Ščelanovcev**, J. P. Beiträge zur Anatomie der Pseudoscorpioniden. (Russ.) Moskva, Zap. Univ. [Sectio hist. nat.], **18**, 1903, (I-V + 1-202, mit 3 Taf.).

### SPECIAL.

*Chelifer* nn. spp. Camerun. **Tullgren**, A. Entomol. Tidskr., Stockholm, **22**, 1901, (97-101).

——— *sculpturatus* n. sp. Natal. **Lewis**, R. T. London, J. Quek. Microsc. Cl., **8**, 1903, (497-498, pl. XXV).

——— (*Chermes*) *tullgreni* Strand, in Scotland. **Evans**, W. Ann. Scot. Nat. Hist., Edinburgh, **1903**, (120-121).

*Chethonius sinuatus* n. sp. Camerun. **Tullgren**, A. Entomol. Tidskr., Stockholm, **22**, 1901, (97-101).

*Obisium brevifemorum* n. sp. Norway. **Killingen**, E. Kristiania, Forh. Vid. selsk., **1903**, No. 5, (18).

*Roncus cambridgii* L.K., in Argyllshire. **Waterston**, T. Ann. Scot. Nat. Hist., Edinburgh, **1903**, (187).

## PHALANGIDA.

### GENERAL.

**Banks**, N. Daddy-long-legs from Mt. Katahdin, Maine. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (308-309).

**Dahl**, F. Eine eigenartige Metamorphose der Trogludiden, eine Verwandlung von *Amopaum* in *Dicranolasma* und von *Metopoctea* in *Trogulus*. Berlin, SitzBer. Ges. natf. Freunde, **1903**, (287-292).

**Heller**, E. Die Opilioniden Württembergs. Insektenbörse, Leipzig, **20**, 1903, (379-380, 394-395, 405, 411-412).

**Loman**, J. C. C. . . . Classification of Opiliones. Helder, Tijdschr. Ned. Dierk. Ver., **8**, 1903, (62-66).

——— Vergleichend anatomische Untersuchungen an chilenischen und andern Opilioniden. Zool. Jahrb., Jena, Suppl. 6, 1903, (117-200, mit 4 Taf.).

### SPECIAL.

*Acumontia*, description of species and 2 nn. spp. **Pocock**, R. I. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (441-444, pl. XI, figs. 2-2').

——— nn. spp. Madagascar. **Pocock**, R. I. London, Proc. Zool. Soc., **1902**, 2, 1903, (405-409).

*Adaenum areolatum* n. sp. Africa. **Pocock**, R. I. l.c. (401-402).

*Anthracosiro*† n. gen., *A. woodwardi*† n. sp. **Pocock**, R. I. Geol. Mag., London, [4], **10**, 1903, (247-251, 2 text-figs.).

——— *fritschii*† n. sp. **Pocock**, R. I. l.c. (405-408, 1 text-fig.).

*Biantes* nn. spp. **Pocock**, R. I. Nat. Hist. Sokotra, **1903**, (200-204).

*Ceratobunus* nn. spp. **With**, C. J. London, J. Linn. Soc. Zool., **23**, 1903, (476-478).

*Dicranolasma* nn. spp. **Dahl**, F. Berlin, SitzBer. Ges. natf. Freunde, **1903**, (278-292).

*Epedanus geniculatus* n. sp. Hong Kong. Pocock, R. I. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (446-447, pl. XII, fig. 1).

*Gagrella* nn. spp. With, C. J. London, J. Linn. Soc. Zool., 23, 1903, (466-506).

*Hadrachne* n. gen., *H. horribilis*† n. sp. Illinois, Carboniferous. Melander, A. L. Chicago, Ill., J. Geol. Univ. Chic., 11, 1903, (178-198).

*Hinzuanus leighi* n. sp. Natal. Pocock, R. I. London, Proc. Zool. Soc., 1902, 2, 1903, (412).

*Hypsibunus vigilans* n. sp. With, C. J. London, J. Linn. Soc. Zool., 23, 1903, (475).

*Kustarachne*† nn. spp. Illinois, Carboniferous. Melander, A. L. Chicago, Ill., J. Geol. Univ. Chic., 11, 1903, (178-198).

*Lomanella* n. gen., *L. raniceps* n. sp. Tasmania. Pocock, R. I. London, Proc. Zool. Soc., 1902, 2, 1903, (411-412).

*Macropsalis hoggi* n. sp. Victoria. Pocock, R. I. l.c. (398-399).

*Monoxymma* n. gen., *M. spinatum* n. sp. New South Wales. Pocock, R. I. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (444-446, pl. XI, figs. 1-1c).

*Pantopsalis* nn. spp., *P. nigripalpis*: *spiculosa* n. subsp. New Zealand. Pocock, R. I. London, Proc. Zool. Soc., 1902, 2, 1903, (399-400).

— nn. spp. New Zealand. Pocock, R. I. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (436-438).

*Pelitus* nn. spp. Malay Peninsula. Pocock, R. I. London, Proc. Zool. Soc., 1902, 2, 1903, (413).

*Phalangium* nn. spp. Africa. Pocock, R. I. l.c. (392-398).

— *bettoni* n. sp. British East Africa. Pocock, R. I. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (438-439).

*Plistobunus* n. gen., *P. rapaz* n. sp. Hong Kong. Pocock, R. I. l.c. (447-448, pl. XII, fig. 2).

*Podactis pictulus* n. sp. Ceylon. Pocock, R. I. l.c. (448-449, pl. XII, figs. 3, 3a).

*Prionostemma* n. nom. for *Prionomma* Loman and *P. insculptum*, *P. santillans*, *P. bicolor*, *P. citrinum* nn. spp. Venezuela and Guatemala. Pocock, R. I. l.c. (433-435).

*Sorensenella* n. gen., *S. prehensor* n. sp. New Zealand. Pocock, R. I. London, Proc. Zool. Soc., 1902, 2, 1903, (409-411).

— *bicornis* n. sp. New Zealand. Pocock, R. I. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (439-441, pl. XI, figs. 3, 3a).

*Triaenobunus pectinatus* n. sp. Tasmania. Pocock, R. I. London, Proc. Zool. Soc., 1902, 2, 1903, (400-401).

*Triaenonyx* nn. spp. New Zealand. Pocock, R. I. l.c. (403-405).

*Trogulus* nn. spp. Dahl, F. Berlin, SitzBer. Ges. natf. Freunde, 1903, (278-292).

*Zaleptus* nn. spp. With, C. J. London, J. Linn. Soc. Zool., 23, 1903, (479-482).

## ACARI.

## GENERAL.

Bonnet, A. Sur le développement post-embryonnaire des Ixodes. Paris, C.-R. Acad. sci., 137, 1903, (419-420).

Howlett, W. F. [Note on copulation in a "water-mite."] Zoologist, London, (Ser. 4), 7, 1903, (355).

Largaiolli, V. Idracne del Trentino. Quarto contributo allo studio delle Idracne italiane (?). Tridentum, Trient, 6, 1903, (132-136).

Laveran, A. Au sujet du rôle des tiques dans la propagation des piroplasmoses. Paris, C.-R. soc. biol., 55, 1903, (61-63).

Marucci, [V.]. Nota preliminare sugli *Hydracnidae* del lago di Castel Gandolfo. Mon. zool. ital., Firenze, 13, 1902, (Supplemento), (35).

Maurizio, A. Verunreinigung der Kraftfuttermittel durch Milben. Schweiz. Landw. Zeitschr., Aarau, 30, 1902, (1001-1004, mit 2 Fig.).

Mégnin, [P.]. Rôle des tiques ou Ixodes dans la propagation des piroplasmoses. Paris, C.-R. soc. biol., 55, 1903, (4-6).

— Encore un mot sur la biologie des Ixodes. l.c. (175-176).

**Michael**, A. D. British *Tyroglyphidae*. Vol. II. London, (Ray Society), 1903, (VII, 183, pls. XX-XXXIX).

**Müller**, Herm. Hydrachniden (Hamburgische Elb-Untersuchung). Hamburg, Jarh. wiss. Anst., **19**, (1901), Beih. 2, 1903, (155-161).

**Nordenskiöld**, E. Über F. D. Wasastjernas "Monographia Acarorum." Helsingfors, Comptes rendus du Congrès des Naturalistes et Médecins du Nord tenu à Helsingfors du 7 au juillet 1902, **1903**, VI Section, (2-4).

**Oudemans**, A. C. Notes on Acari. 's Gravenhage, Tijdschr. Ent., **45**, 1903, (123-150, with 3 pls.).

Notes on Acari. Sixth series. *l.c.* **46**, [1903], (1-24, with 3 pl.).

Notes on Acari. Helder, Tijdschr. Ned. Dierk. Ver., (Ser. 2), **8**, [1903], (17-34, with 4 pls., 70-92, with 2 pl.).

**Pierzig**, R. Neues Verzeichnis der bisher im sächsischen Erzgebirge aufgefundenen Hydrachniden-Formen. Annaberg, Ber. Ver. Natk., **11**, (1898-1903), 1903, (34-46, mit 2 Taf.).

**Soar**, C. R. A few words on freshwater mites (*Hydrachnidae*). Edinburgh, Trans. Nat. Soc., **5**, 1903, (40-46, pls. III-VI).

**Thon**, K. [Hydrachniden Böhmens. (*Limnochardidae*)]. Prag, Arch. Pflod. Vysk. Čech., **12**, No. 2, 1903, (75, mit 34 Textfig.).

Die neuen Exkretionsorgane bei der Hydrachniden-Familie *Limnochardidae* Kr. Verh. D. zool. Ges., Leipzig, **13**, 1903, (166-168).

**Thor**, Sig. Eine acarologische Reise nach Schwarzbach bei Zweibrücken. Nyt Mag. Naturv., Kristiania, **41**, 1903, (69-72).

#### SPECIAL.

*Acotyledon* n. gen., *A. paradoxa* n. sp. **Oudemans**, A. C. 's Gravenhage, Tijdschr. Ent., **45**, 1903, (147).

*Anoetus neglectus* n. sp. **Oudemans**, A. C. *l.c.* **46**, [1903], (1-24).

*Argas andresi* n. sp. di acaro dell'ordine dei Metastigmata. **Mariani**, M. Camerino (tip. Savini), 1902, (6).

*Arrhenurus*, old and new species from Lincolnshire. **George**, C. F. Naturalist, London, **1903**, (83-84, 215-216, 252, 304, 324, with figs.).

nn. spp. Irish. **Halbert**, J. N. Zool. Anz., Leipzig, **26**, 1903, (268-271).

*globator* Müll var. *megalurinus* n. var. et nn. spp. **Marshall**, R. Madison, Trans. Wis. Acad. Sci., **14**, 1902, [1903], (148).

*rosulatus* n. sp. **Daday**, T. Math. Term. Ért., Budapest, **21**, 1903, (355-357).

*Atax adensameri* n. sp. Texas. **Thon**, K. Wien, Ann. Nat. Hist. Hofmus., **16**, 1901, (31-35, mit 1 Taf.).

*Brachypodopsis* n. gen., *B. gracilis* n. sp. **Pierzig**, R. Annaberg, Ber. Ver. Natk., **11**, (1898-1903), 1903, (34-46).

*Bryobia ribis* Thomas. **Hanstein**, R. von. Berlin, Sitzber. Ges. natf. Freunde, **1902**, (128-136).

*Ceratixodes* n. gen. for *Ixodes putus*. **Neumann**, L. Arch. parasit., Paris, **6**, 1902, (109-128).

*Cerophagus* n. gen., *C. bomborum* n. sp. **Oudemans**, A. C. 's Gravenhage, Tijdschr. Ent., **46**, 1903, (13-15).

*Coenonychus* n. gen., *C. fallax* n. sp. **Oudemans**, A. C. *l.c.* (1-2).

*Coepophagus echinopus*, deperimento della vite per causa di [questo] acaro. **Hineck**, G. Bollettino di Entomologia agraria, Padova, **9**, 1902, (33-35).

Faunistische-Beschreibung. **Istvánfi**, G. Math. Term. Ért., Budapest, **21**, 1903, (157-176).

acaro radicolare che produce una speciale malattia nelle viti. **Silvestri**, F. Bollettino di Entomologia agraria, Padova, **9**, 1902, (49-56, con fig.).

*Cosmolaelaps* n. subgen. (*Laelaps*). **Berlese**, A. Zool. Anz., Leipzig, **27**, 1903, (19-20).

*Damaeus* nn. spp. **Dementjew**, A. M. Zs. Pflanzenkrankh., Stuttgart, **13**, 1903, (65-82).

*Demodex folliculorum*, seine Beziehung zur Lidrandentzündung. **Joerss**, [K. E. J.]. Giessen, Ber. Ges. Natk., **33**, 1899-1902, (113-115).

\_\_\_\_\_ dans les follicules ciliaires de l'homme. **Stcherbatchoff**, [N.]. Thèse Méd. Lausanne (Guesse), 1903, (23, av. 1 pl.). 8vo.

*Dermacentor reticulatus*. Rocky Mountains. **Anderson**, John F. Washington, D.C., Treas. Dept., Pub. Hlth. Mar. Hosp. Serv. Hyg. Lab. Bull. No. **14**, 1903, (50).

*Disparipes* nn spp. Italia. **Berlese**, A. Zool. Anz., Leipzig, **27**, 1903, (23-24).

*Eremaeus hessei* n. sp. **Oudemans**, A. C. s' Gravenhage, Tijdschr. Ent., **45**, 1903, (143).

\_\_\_\_\_ *norus* n. sp. **Oudemans**, A. C. l.c. **46**, 1903, (6).

*Eriophyes ditersepunctatus* und *E. frazinicola*. **Kuster**, E. Flora, Marburg, **92**, 1903, (380-395).

*Erythraeus lomani* n. sp. **Oudemans**, A. C. s' Gravenhage, Tijdschr. Ent., **45**, 1903, (141).

*Erythrocheylus* (= *Erythracarus*) n. gen., *E. littoralis* n. sp. Italia. **Berlese**, A. Zool. Anz., Leipzig, **27**, 1903, (26-27).

*Eylais*, species from Ireland, with 3 nn. spp and 2 nn. varr. **Halbert**, J. N. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (505-515, with 10 figs.).

\_\_\_\_\_ nn. spp. Ungarn. **Daday**, E. von. Math.-natw. Ber. Ungarn, Leipzig, **18**, (1900), 1903, (341-364).

\_\_\_\_\_ *mellipons* n. sp. **Thor**, S. Nyt. Mag. Naturv., Kristiania, **41**, 1903, (73-75, 4 fig.).

*Fusacarus* n. gen., *F. laminipes* n. sp. **Michael**, A. British Tyroglyphidae, Vol. II. London, (Ray Society), 1903, (9-12, pl. XXI).

*Glycyborus* n. gen. **Oudemans**, A. C. s' Gravenhage, Tijdschr. Ent., **46**, 1903, (8).

*Greenia*, Symbiose mit *Coptorhosoma*. **Oudemans**, A. C. Zool. Anz., Leipzig, **27**, 1903, (137-139).

\_\_\_\_\_ *alfkeni* n. sp. **Oudemans**, A. C. l.c. **45**, 1903, (126).

*Haemaphysalis calcarata* n. sp. **Neumann**, L. G. Arch. parasit., Paris, **6**, 1902, (109-128).

*Hericia georgei* n. sp. **Michael**, A. British Tyroglyphidae, Vol. II. London, (Ray Society), 1903, (38-41, pl. XXXIX).

*Histiophorus castoris*. **Brandes**, G. Zs. Natw., Stuttgart, **76**, 1903, (144).

*Hoploderma ellipsoidalis* n. sp. **Dementjew**, A. M. Zs. Pflanzenkrankh., Stuttgart, **13**, 1903, (85-82).

*Hydrachna* nn. spp. Ireland. **Halbert**, J. N. Zool. Anz., Leipzig, **26**, 1903, (265-267).

\_\_\_\_\_ *processifera* n. sp. Nord-Deutschland. **Koenike**, F. l.c. (534-536).

*Hyrogamasus silvestrii* n. sp. Italia. **Berlese**, A. l.c. **27**, 1903, (27).

*Hydryphantes* nn. spp. Norddeutschland. **Koenike**, F. l.c. **26**, 1903, (534-536).

\_\_\_\_\_ *ruber* var. *neumani* n. var. **Thor**, S. Nyt. Mag. Naturv., Kristiania, **41**, 1903, (73-75, 4 fig.).

*Hypoaspis greeni* n. sp. **Oudemans**, A. C. s' Gravenhage, Tijdschr. Ent., **45**, 1903, (128).

*Imparipes histricinus* n. sp. Italia. **Berlese**, A. Zool. Anz., Leipzig, **27**, 1903, (24).

*Izodes arenicola* Eichwald, possibly identical with *Hyalomma aegyptium* Tullgr. **Tullgren**, A. Entomol. Tidskr., Stockholm, **22**, 1901, (102).

\_\_\_\_\_ *reduvius*. **Kossel**, H., Schüts, [J. W.], **Weber**, A., **Miesner**, [H.]. Berlin, Arb. Gesundheitsamt, **20**, 1903, (1-77, mit 3 Taf.).

\_\_\_\_\_ *minor* n. sp. **Neumann**, L. G. Arch. parasit., Paris, **6**, 1902, (109-128, av. 6 fig.).

*Laelaps* (*Laelaspis*, *Cosmolaelaps* nn. subgen.) nn. spp. Italia. **Berlese**, A. Zool. Anz., Leipzig, **27**, 1903, (14-19).

*Laelaspis* n. subgen. (*Laelaps*). Italia. **Berlese**, A. l.c. (13).

*Lebertia paresii* n. sp. **Monti**, R. l.c. **26**, 1903, (889-893).

\_\_\_\_\_ *quadripora* n. sp. Norddeutschland. **Koenike**, F. l.c. (534-536).

*Limnesia* nn. spp. **Wolcott**, R. H. Lincoln, Stud. Zool. Lab., Univ. Nebr., No. 56, 1903, ([85]-107, with pl.).

*Liponyssus* nn. spp. **Oudemans**, A. C. Helder, Tijdschr. Ned. Dierk. Ver., 8, 1903, (18-22).

*Myrmonyssus* (~ *Laelaps*) n. gen., *M. acuminatus*, *M. brachiatus*, *M. diplogenus* nn. spp. **Italia**. **Berlese**, A. Zool. Anz., Leipzig, 27, 1903, (16-18).

*Nanacar* n. gen., *N. minutus* n. sp. **Oudemans**, A. C. s' Gravenhage, Tijdschr. Ent., 46, 1903, (8-11).

*Opilioacar* n. gen., *O. segmentatus*, n. sp. **With**, C. Helsingfors, Comptes rendus du Congrès des Naturalistes et Médecins du Nord tenu à Helsingfors du 7 au 12 juillet 1902, 1903, (4-5).

*Oribata myrmobates* n. sp. **Italia**. **Berlese**, A. Zool. Anz., Leipzig, 27, 1903, (25).

\_\_\_\_\_ *oviformis* n. sp. **Dementjew**, A. M. Zs. Pflanzenkrankh., Stuttgart, 13, 1903, (65-82).

*Pediculoides* nn. spp. **Italia**. **Berlese**, A. l.c. (24-25).

*Phytoptus vitis*. **Bioletti**, F. T. and **Twight**, E. H. Agric. Exp. Sta., California, Berkeley, Bull., No. 136, 1901, (7, with 5 figs.). 23 cm. [Review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta., Rec., 13, 1902, (768).

*Piersigia limophila* Protz. **George**, C. F. Naturalist, London, 1903, (111-112, 8 text-figs.).

*Pionides ensifer* (Koenike). **George**, C. F. l.c. (421, 5 text-figs.).

*Psoroptes*, habits. **Hickman**, R. W. Washington, D.C., U. S. Dept. Agric. Rep. Bur. Anim. Indust., 1902, 1903, (45-61, with pl.).

*Rhipicephalus*, influence sur la propagation des piroplasmoses. **Mégnin**, P. Paris, C.-R. soc. biol., 55, 1903 (147-149).

\_\_\_\_\_ nn. spp. **Neumann**, I. G. Arch. parasit., Paris, 6, 1902, (109-128).

*Rhizoglyphus agilis* n. sp. **Michael**, A. British Tyroglyphidae, Vol. II, London, (Ray Society), 1903, (96-97, pl. XXXII).

\_\_\_\_\_ nn. spp. **Dementjew**, A. M. Zs. Pflanzenkrankh., Stuttgart, 13, 1903, (65-82).

*Tarsonemus soricicola* n. sp. **Oudemans**, A. C. s' Gravenhage, Tijdschr. Ent., 46, 1903, (5).

*Tetranychus mytilaspidis*. **Woodworth**, C. W. Agric. Exp. Sta., California, Berkeley, Bull., No. 145, 1902, (19, with text-fig.). 23 cm. [Review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta., Rec., 14, 1903, (782).

*Thrombidium novum* n. sp. **Oudemans**, A. C. s' Gravenhage, Tijdschr. Ent., 46, (3).

\_\_\_\_\_ *russicum* n. sp. **Oudemans**, A. C. l.c. 45, 1903, (142).

*Tricholarius* nn. spp. **Oudemans**, A. C. l.c. (145-146).

*Trombidium vagabundum* n. sp. **Italia**. **Berlese**, A. Zool. Anz., Leipzig, 27, 1903, (28).

*Tyroglyphus* spp., *T. heterocomus* n. sp. **Michael**, A. British Tyroglyphidae, Vol. II. London, (Ray Society), 1903, (106-136).

\_\_\_\_\_ *fucorum* n. sp. **Oudemans**, A. C. s' Gravenhage, Tijdschr. Ent., 46, 1903, (18).

*Uropoda* nn. spp. **Italia**. **Berlese**, A. Zool. Anz., Leipzig, 27, 1903, (20-21).

\_\_\_\_\_ *wagneri* n. sp. **Oudemans**, A. C. s' Gravenhage, Tijdschr. Ent., 45, 1903, (138).

## PALPIGRADI.

*Koenenia*, further observations. **Rucker**, A. Zool. Jahrb., Jena, Abt. f. Syst., 18, 1903, (401-434, mit 3 Taf.).

\_\_\_\_\_ nn. spp. S. America and Siam. **Hansen**, H. J. Entomol. Tidskr., Stockholm, 22, 1901, (193-240, with pl.).

\_\_\_\_\_ *florenciae* n. sp. **Texas**. **Rucker**, A. London, Q. J. Microsc. Sci., (N. Ser.), 47, 1903, (215-231, pl. XVIII).

## LIST OF NEW GENERA AND SPECIES.

### ACANTHODON [Araneida].

- \_\_\_\_\_ *fryi*. Purcell. 116.
- \_\_\_\_\_ *kentanicus*. Purcell. 116.
- \_\_\_\_\_ *pectinipalpis*. Purcell. 116.
- \_\_\_\_\_ *spiricola*. Purcell. 116.
- \_\_\_\_\_ *versicolor*. Purcell. 116.

- ACANTHOSOURRIA** [Araneida].  
 — *antillensis*. Pocock. 100.  
 — *sternalis*. Pocock. 100.  
 — *suina*. Pocock. 100.  
 — *tarda*. Pocock. 100.
- Acotyledon** n. gen. [Acari]. Oudemans. 88.  
 — *paradoxa*. Oudemans. 88.
- Acropholius** n. gen. [Araneida]. Simon. 131.  
 — *alluaudi*. Simon. 131.  
 — *mathiauzi*. Simon. 131.
- ACUMONTIA** [Phalangida].  
 — *echinata*. Pocock. 104.  
 — *majori*. Pocock. 98.  
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 — *rostrata*. 98.
- ADAEUM** [Phalangida].  
 — *areolatum*. Pocock. 98.
- ADMESTINA** [Araneida].  
 — *bitaeniata*. Simon. 129.
- AELURILLUS** [Araneida].  
 — *crisatopalpus*. Simon. 129.
- AGANIPPE** [Araneida].  
 — *occidentalis*. Hogg. 51.
- AGELENA** [Araneida].  
 — *pusilla*. Pocock. 109.
- AGORIUS** [Araneida].  
 — *formicinus*. Simon. 134.
- ALCIMOCHTHES** [Araneida].  
 — *melanophthalmus*. Simon. 133.
- Alcimomonotus** n. gen. [Araneida]. Simon. 129.  
 — *gounellei*. Simon. 129.
- Almota** n. gen. [Araneida]. Peckham and Peckham. 95.  
 — *quinii*. Peckham and Peckham. 95.
- Anaptomecus** n. gen. [Araneida]. Simon. 130.  
 — *longiventris*. Simon. 130.
- ANCYLOTRYPA** [Araneida].  
 — *pusilla*. Purcell. 115.
- ANGAEUS** [Araneida].  
 — *lenticulosus*. Simon. 133.
- ANOETUS** [Acari].  
 — *neglectus*. Oudemans. 89.
- ANOMALOMMA** [Araneida].  
 — *bisinuata*. Purcell. 116.  
 — *schreineri*. Purcell. 116.
- Anthracostiro**† n. gen. [Phalangida]. Pocock. 106.  
 — *fritschii*†. Pocock. 107.  
 — *woodwardi*†. Pocock. 106.
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 — *gracilipes*. Banks. 3.
- Aphycotoschema** n. gen. [Araneida]. Simon. 135.  
 — *hygrophila*. Simon. 135.
- APYRE** [Araneida].  
 — *catenulata*. Simon. 132.  
 — *nigra*. Simon. 132.  
 — *quinquenotata*. Simon. 132.  
 — *tesseira*. Simon. 132.
- ARBANITIS** [Araneida].  
 — *maculipes*. Hogg. 51.
- ARCHEMORUS** [Araneida].  
 — *curtulus*. Simon. 130.
- ARGAS** [Acari].  
 — *andresi*. Mariani. 70.
- ARIAMNES** [Araneida].  
 — *campistratus*. Simon. 133.
- ARRENURUS** [Acari].  
 — *birgei*. Marshall. 71.  
 — *cardiacus*. Marshall. 71.  
 — *dilatatus*. Halbert. 44.  
 — *freemani*. Halbert. 44.  
 — *globator* var. *megalurus* n. var. Marshall. 71.  
 — *mantonensis*. George. 41.  
 — *manubriator*. Marshall. 71.  
 — *nonforpicatus*. George. 41.  
 — *parallellatus*. Marshall. 71.  
 — *pyriformis*. George. 41.  
 — *rosulatus*. Daday. 27.  
 — *sculptus*. Halbert. 44.
- ARTORIA** [Araneida].  
 — *fascicularis*. Purcell. 116.
- ASHTABULA** [Araneida].  
 — *denticheis*. Simon. 129.  
 — *glauca*. Simon. 129.  
 — *sexguttata*. Simon. 129.
- ATAX** [Acari].  
 — *adensameri*. Thon. 148.
- Atrophothele** n. gen. [Araneida]. Pocock. 109.  
 — *socotrana*. Pocock. 109.
- AVICULARIA** [Araneida].  
 — *minatrix*. Pocock. 100.
- AVITUS** [Araneida].  
 — *longidens*. Simon. 129.
- BARYPHAS** [Araneida].  
 — *eupogon*. Simon. 129.  
 — *jullieni*. Simon. 129.



**Bassaniodes** n. gen. [Araneida]. Pocock.  
109.

———— *socotrensis*. Pocock. 109.

**Batesiella** n. gen. [Araneida]. Pocock.  
103.

———— *crinita*. Pocock. 103.

**BAVIA** [Araneida].

———— *annamita*. Simon. 133.

———— *thorelli*. Simon. 129.

**BIANOR** [Araneida].

———— *biocellosus*. Simon. 129.

———— *rusticulus*. Peckham and  
Peckham. 95.

**BIANTES** [Phalangida].

———— *bicolor*. Pocock. 109.

———— *flaviventris*. Pocock. 109.

**Blaisea** n. gen. [Araneida]. Simon. 133.

———— *lyrata*. Simon. 133.

**BLOSSIA** [Solifugae].

———— *echinata*. Purcell. 115.

———— *litoralis*. Purcell. 114.

**BOLOSTROMUS** [Araneida].

———— *riveti*. Simon. 134.

**BRACHIONOPUS** [Araneida].

———— *annulatus*. Purcell. 116.

———— *tristis*. Purcell. 116.

**Brachypodops** n. gen. [Acari]. Piersig.  
96.

———— *gracilis*. Piersig. 96.

**BUTHEOLUS** [Scorpionida].

———— *glabrifrons*. Kraepelin. 61.

**BUTHUS** [Scorpionida].

———— *deserticola*. Birul'ya. 10.

———— *palpator*. Birul'ya. 9.

**Calathotarsus** n. gen. [Araneida]. Simon.  
130.

———— *coronatus*. Simon. 130.

**CALOMMATA** [Araneida].

———— *simoni*. Pocock. 103.

**CAMARIOUS** [Araneida].

———— *pulchellus*. Simon. 133.

**Ceratrixodes** n. gen. [Acari]. Neumann.  
82.

**CERATOBUNUS** [Phalangida].

———— *brevipes*. With. 155.

———— *calcuttensis*. With. 155.

———— *pulcher*. With. 155.

**Cerophagus** n. gen. [Acari]. Oudemans.  
89.

———— *bomborum*. Oudemans. 89.

**Cestotrema** n. gen. [Araneida]. Simon.  
131.

———— *bastardi*. Simon. 31.

**CHASIDAMNA** [Araneida].

———— *aculeata*. Simon. 129.

———— *luctuosa*. Simon. 129.

———— *rufociliata*. Simon. 129.

———— *semifimbriata*. Simon. 129.

———— *thysbe*. Simon. 129.

**CHELIFER** [Chernetida].

———— *camerunensis*. Tullgren.  
151.

———— *sculpturatus*. Lewis. 87.

———— *sjöstedti*. Tullgren. 151.

**CHETHONIUS** [Chernetida].

———— *sinuatus*. Tullgren. 151.

**CHIRACANTHIUM** [Araneida].

———— *socotrenas*. Pocock. 109.

**Chresiona** n. gen. [Araneida]. Simon.  
130.

———— *albescens*. Simon. 130.

———— *convexa*. Simon. 130.

———— *nigrosignata*. Simon. 130.

———— *quadrilineata*. Simon. 130.

**CITHAROSCELUS** [Araneida].

———— *actaeon*. Pocock. 100.

———— *alticeps*. Pocock. 100.

**CLYTAETRA** [Araneida].

———— *thysbe*. Simon. 130.

**CODETA** [Araneida].

———— *bouchardi*. Simon. 134.

**COELOSSIA** [Araneida].

———— *trituberculata*. Simon. 132.

**Coenonychus** n. gen. [Acari]. Oudemans.  
89.

———— *fallaz*. Oudemans. 89.

**COPA** [Araneida].

———— *lineata*. Simon. 132.

**COPOCROSSA** [Araneida].

———— *bimaculata*. Peckham and  
Peckham. 95.

———— *harpina*. Simon. 134.

**Coryasiphus** n. gen. [Araneida]. Simon.  
130.

———— *cinerascens*. Simon. 130.

———— *praeusta*. Simon. 130.

———— *unicolor*. Simon. 130.

**Cosmolaelaps** n. subgen. [Acari].  
Berlese. 7.

**COSMOPHASIS** [Araneida].

———— *australis*. Simon. 129.

———— *longiventris*. Simon. 133.

———— *umbratica*. Simon. 134.

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———— *batesii*. Pocock. 103.

———— *coccineipes*. Pocock. 103.

- CYBELE [Araneida].  
 — *haytiensis*. Banks. 3.
- §CYLLOBELUS [Araneida].  
 — *australis*. Peckham and Peckham. 95.
- CYPHALONOTUS [Araneida].  
 — *columnifer*. Simon. 132.
- CYRRA [Araneida].  
 — *dotata*. Peckham and Peckham. 95.
- CYRTAUCHENIUS [Araneida].  
 — *dentatus*. Purcell. 115.
- CYRTOPHOLIS [Araneida].  
 — *agilis*. Pocock. 100.  
 — *femoralis*. Pocock. 100.
- DAESIA [Solifugae].  
 — *laminata*. Pocock. 101.  
 — *scabulosa*. Pocock. 101.  
 — *schreineri*. Purcell. 115.
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 — *carabiformis*. Dementjew. 35.  
 — *radiciphagus*. Dementjew. 35.
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 — *purcellii*. Peckham and Peckham. 95.
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 — *crosslandi*. Pocock. 97.
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 — *desorzei*. Simon. 131.
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 — *pauper*. Dahl. 32.  
 — *verhoeffi*. Dahl. 32.
- DIMISONOPS n. gen. [Araneida]. Pocock. 109.  
 — *insularis*. Pocock. 109.
- DIPLOCEPHALUS [Araneida].  
 — *adjacens*. Cambridge. 24.  
 — *jacksonii*. Cambridge. 24.
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 — *burula*. Berlese. 7.  
 — *circularis*. Berlese. 7.  
 — *silvestri*. Berlese. 7.
- DOLOMEDES [Araneida].  
 — *actaeon*. Pocock. 103.  
 — *batesii*. Pocock. 103.  
 — *palpiger*. Pocock. 103.
- DONUES n. gen. [Araneida]. Simon. 132.  
 — *decorzei*. Simon. 132.
- ECTANOSTICTA [Araneida].  
 — *australis*. Simon. 135.

- EMPLESIOGONUS [Araneida].  
 — *scutulatus*. Simon. 132.
- ENTYPEZA n. gen. [Araneida]. Simon. 131.  
 — *nebulosa*. Simon. 131.
- EODELENA n. gen. [Araneida]. Hogg. 50.  
 — *spenceri*. Hogg. 50.
- EPECTHINULA n. gen. [Araneida]. Simon. 130.  
 — *minutissima*. Simon. 130.
- EPEDANUS [Phalangida].  
 — *geniculatus*. Pocock. 104.
- ETHEBOPUS [Araneida].  
 — *fossor*. Pocock. 100.
- EPIDIUS [Araneida].  
 — *brevipalpus*. Simon. 133.
- ERASINUS [Araneida].  
 — *flavibarbis*. Simon. 129.
- EREMAEUS [Acari].  
 — *hessei*. Oudemans. 88.  
 — *novus*. Oudemans. 89.
- ERYTHRAEUS [Acari].  
 — *lomani*. Oudemans. 88.
- ERYTHROCHEYLUS n. gen. [Acari]. Berlese. 7.  
 — *littoralis*. Berlese. 7.
- EUOPHRYUS [Araneida].  
 — *infaustus*. Peckham and Peckham. 95.  
 — *leipoldtii*. Peckham and Peckham. 95.  
 — *purcellii*. Peckham and Peckham. 95.  
 — *simonii*. Peckham and Peckham. 95.
- EVAGRUS [Araneida].  
 — *atropurpureus*. Purcell. 116.
- EVARCHA [Araneida].  
 — *heteropogon*. Simon. 133.
- EYLALIS [Acari].  
 — *celtica*. Halbert. 43.  
 — *dubia*. Daday. 26.  
 — *hungarica*. Daday. 26.  
 — *incisa*. Daday. 26.  
 — *infundibulifera* var. *stagnalis* n. var. Halbert. 43.  
 — *koenikei*. Halbert. 43.  
 — *longipons*. Daday. 26.  
 — *mellipons*. Thor. 150.  
 — *producta*. Daday. 26.  
 — *soari* var. *instabilis* n. var. Halbert. 43.  
 — *symmetrica*. Halbert. 43.

- FIRMICUS** [Araneida].  
     *duriusculus*. Simon. 133.
- Forsythula** n. gen. [Araneida]. Pocock.  
     102.  
     *majori*. Pocock. 102.
- Fusacarus** n. gen. [Acari]. Michael.  
     78.  
     *laminipes*. Michael. 78.
- GAGRELLA** [Phalangida].  
     *dentata*. With. 155.  
     *cruz*. With. 155.  
     *flavimaculata*. With. 155.  
     *fragilis*. With. 155.  
     *hanseni*. With. 155.  
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     \_\_\_\_\_ var. *dentata* n.  
     \_\_\_\_\_ var. With. 155.  
     \_\_\_\_\_ var. *unis-pinosae*  
     \_\_\_\_\_ n. var. With. 155.  
     \_\_\_\_\_ *mirabilis*. With. 155.  
     \_\_\_\_\_ *nobilis*. With. 155.  
     \_\_\_\_\_ *splendens*. With. 155.  
     \_\_\_\_\_ *stoliczkae*. With. 155.  
     \_\_\_\_\_ *triangularis*. With. 155.  
     \_\_\_\_\_ var. *fusca* n. var.  
     \_\_\_\_\_ With. 155.  
     \_\_\_\_\_ *varians*. With. 155.  
     \_\_\_\_\_ var. *dentata* n.  
     \_\_\_\_\_ var. With. 155.
- GALEODES** [Solifugae].  
     *granti*. Pocock. 101.
- Galeosoma** n. gen. [Araneida]. Purcell.  
     116.  
     *scutatum*. Purcell. 116.
- GASTERACANTHA** [Araneida].  
     *bouchardis*. Simon. 134.  
     *marsdeni*. Simon. 134.
- Genysoschoera** n. gen. [Araneida].  
     Simon. 131.  
     *decorsei*. Simon. 131.
- Glycyborus** n. gen. [Acari]. Oudemans.  
     89.
- GLUVIA** [Solifugae].  
     *chapmani*. Pocock. 102.
- GORGYRELLA** [Araneida].  
     *schreineri*. Purcell. 115.
- GREENIA** [Acari].  
     *alfkeni*. Oudemans. 88.
- HABROCESTUM** [Araneida].  
     *annae*. Peckham and  
     \_\_\_\_\_ Peckham. 95.  
     \_\_\_\_\_ *dotatum*. Peckham and  
     \_\_\_\_\_ Peckham. 95.
- HABROCESTUM** [Araneida].  
     *laurae*. Peckham and  
     \_\_\_\_\_ Peckham. 95.  
     \_\_\_\_\_ *luculentum*. Peckham and  
     \_\_\_\_\_ Peckham. 95.
- Hadrachne** n. gen. [Phalangida].  
     Melander. 77.  
     \_\_\_\_\_ *horribilis*. Melander. 77.
- HAEMAPHYSALIS** [Acari].  
     *calcarata*. Neumann. 82.
- HAPALOPUS** [Araneida].  
     *pictus*. Pocock. 100.
- HARMONICON** [Araneida].  
     *riveti*. Simon. 134.
- HARPAOTIRA** [Araneida].  
     *baviana*. Purcell. 115.
- HARPAOTIRELLA** [Araneida].  
     *domicola*. Purcell. 116.  
     *helenae*. Purcell. 116.  
     *magna*. Purcell. 116.
- Hebestatis** n. gen. [Araneida]. Simon.  
     130.
- HELIGMOMERUS** [Araneida].  
     *caffer*. Purcell. 113.
- HELIOPHANUS** [Araneida].  
     *beardii*. Peckham and  
     \_\_\_\_\_ Peckham. 95.  
     \_\_\_\_\_ *clarus*. Peckham and  
     \_\_\_\_\_ Peckham. 95.  
     \_\_\_\_\_ *deamatus*. Peckham and  
     \_\_\_\_\_ Peckham. 95.  
     \_\_\_\_\_ *marshallii*. Peckham and  
     \_\_\_\_\_ Peckham. 95.  
     \_\_\_\_\_ *marshii*. Peckham and  
     \_\_\_\_\_ Peckham. 95.  
     \_\_\_\_\_ *modicus*. Peckham and  
     \_\_\_\_\_ Peckham. 95.  
     \_\_\_\_\_ *peckhami*. Simon. 129.  
     \_\_\_\_\_ *prattii*. Peckham and Peck-  
     \_\_\_\_\_ ham. 95.
- Hemerotrecha** n. gen. [Solifugae]. Banks.  
     5.  
     \_\_\_\_\_ *californica*. Banks. 5.
- HEMIBUTHUS** [Scorpionida].  
     *zarudnyi*. Birul'a. 9.
- HEMISCORPION** [Scorpionida].  
     *persicum*. Birul'a. 9.
- Herbessus** n. gen. [Araneida]. Simon.  
     132.  
     \_\_\_\_\_ *decorsei*. Simon. 132.
- HERICIA** [Acari].  
     *georgei*. Michael. 78.
- HERMACHA** [Araneida].  
     *brevicauda*. Purcell. 116.  
     \_\_\_\_\_ *evanescens*. Purcell. 116.

- HERMACHASTES** [Araneida].  
 — *flavopunctatus*. Purcell. 116.  
 — *gouldi*. Purcell. 116.  
 — *schreineri*. Purcell. 116.  
 — *tricalcaratus*. Purcell. 116.
- HETEROPHYNUS** [Pedipalpi].  
 — *elaphus*. Pocock. 102.
- HETEROPODA** [Araneida].  
 — *blaisei* Simon. 133.  
 — *keyserlingi*. Hogg. 50.
- Heteroscorpion** n. gen. [Scorpionida].  
 — *Birulia*. 11.  
 — *madagascarensis*. *Birulia*. 11.
- HINZUANUS** [Phalangida].  
 — *leighi*. Pocock. 98.
- HISPO** [Araneida].  
 — *alboguttata*. Simon. 134.
- HOLOCNEMUS** [Araneida].  
 — *labyrinthi*. Kulczynski. 63.
- HOMALATTUS** [Araneida].  
 — *coriaceus*. Simon. 129.  
 — *marshalli*. Peckham and Peckham. 95.  
 — *obscurus*. Peckham and Peckham. 95.  
 — *punctatus*. Peckham and Peckham. 95.  
 — *smilis*. Peckham and Peckham. 95.
- HOPLODERMA** [Acari].  
 — *ellipsoidalis*. Dementjew. 35.
- HYDRACHNA** [Acari].  
 — *dissimilis*. Halbert. 44.  
 — *incisa*. Halbert. 44.  
 — *processifera*. Koenike. 59.
- HYDROGAMASUS** [Acari].  
 — *silvestrii*. Berlese. 7.
- HYDRYPHANTES** [Acari].  
 — *apeteini*. Koenike. 59.  
 — *dröscheri*. Koenike. 59.  
 — *ruber* var. *neumani* n. var. Thor. 150.
- HYLLUS** [Araneida].  
 — *moestus*. Peckham and Peckham. 95.  
 — *natalii*. Peckham and Peckham. 95.  
 — *perspicuus*. Peckham and Peckham. 95.
- HYPOASPIDIS** [Acari].  
 — *greoni*. Oudemans. 88.
- HYPISIBUNUS** [Phalangida].  
 — *vigilans*. With. 155.
- Hypathylla** n. gen. [Araneida]. Simon. 130.  
 — *linearis*. Simon. 130.
- IOIUS** [Araneida].  
 — *separatus*. Banks. 3.
- Ideocaira** n. gen. [Araneida].  
 — Simon. 130.  
 — *transversa*. Simon. 130.  
 — *triquetra*. Simon. 130.
- Illipula** n. gen. [Araneida]. Simon. 130.  
 — *anguicula*. Simon. 130.
- IMPARIPES** [Acari].  
 — *histicinus*. Berlese. 7.
- IREURA** [Araneida].  
 — *mandarina*. Simon. 133.
- ISALOIDES** [Araneida].  
 — *loussaintii*. Banks. 3.
- ISOPEDA** [Araneida].  
 — *ardrossana*. Hogg. 50.  
 — *frenchi*. Hogg. 50.  
 — *leai*. Hogg. 50.  
 — *leishmanni*. Hogg. 50.  
 — *montana*. Hogg. 50.  
 — *pengellyi*. Hogg. 50.  
 — *pococki*. Hogg. 50.  
 — *saundersi*. Hogg. 50.  
 — *tepperi*. Hogg. 50.  
 — *tietsi*. Hogg. 50.  
 — *woodwardi*. Hogg. 50.
- IXODES** [Acari].  
 — *minor*. Neumann. 82.
- KIMA** [Araneida].  
 — *variabilis*. Peckham and Peckham. 95.
- Klamathia** n. gen. [Araneida]. Peckham and Peckham. 95.  
 — *flava*. Peckham and Peckham. 95.
- KOENENIA** [Palpigradi].  
 — *angusta*. Hansen. 45.  
 — *chilensis*. Hansen. 45.  
 — *florenciae*. Rucker. 120.  
 — *grassei*. Silvestri. 45.  
 — *siamensis*. Hansen. 45.
- KUSTARACHNE** [Phalangida].  
 — *extincta*†. Melander. 77.  
 — *sulcata*†. Melander. 77.
- LAELAPS** [Acari].  
 — *finitimus*. Berlese. 7.  
 — *ornatus*. Berlese. 7.  
 — *ovisugus*. Berlese. 7.
- Laelaspis** n. subgen. [Acari]. Berlese. 7.

- LANGONA** [Araneida].  
 — *avara*. Peckham and Peckham. 95.
- LASEOLA** [Araneida].  
 — *juvenda*. Cambridge. 24.
- LATRODEOTUS** [Araneida].  
 — *ancorifer*. Dahl. 28.  
 — *hahli*. Dahl. 28.  
 — *insularis*. Dahl. 28.  
 — *luzonicus*. Dahl. 28.  
 — *obscurior*. Dahl. 28.  
 — *sagittifer*. Dahl. 28.  
 — *stuhmanni*. Dahl. 28.
- LEBERTIA** [Acari].  
 — *pavesii*. Monti. 80.  
 — *quadripora*. Koenike. 59.
- LEPHITYPANTES** [Araneida].  
 — *acceptus*. Cambridge. 24.
- LEUCAUGE** [Araneida].  
 — *longipes*. Cambridge. 21.  
 — *mandibulata*. Cambridge. 21.  
 — *setigera*. Cambridge. 21.  
 — *simplex*. Cambridge. 21.
- LIMNESIA** [Acari].  
 — *cornuta*. Wolcott. 157.  
 — *histrionica*. Wolcott. 157.  
 — *maculata*. Wolcott. 157.  
 — *paucispina*. Wolcott. 157.  
 — *puteorum*. Wolcott. 157.  
 — *undulata*. Wolcott. 157.
- LINYPHIA** [Araneida].  
 — *lehmanni*. Simon. 134.
- LIPONYSSUS** [Acari].  
 — *albata affinis*. Oudemans. 90.  
 — *kolenatii*. Oudemans. 90.
- Lipophaga** n. gen. [Solifugae]. Purcell. 114.  
 — *trispinosa*. Purcell. 114.
- Lomanella** n. gen. [Phalangida]. Pocock. 98.  
 — *raniceps*. Pocock. 98.
- LYCOBA** [Araneida].  
 — *arbuscula*. Purcell. 115.  
 — *aurata*. Purcell. 116.  
 — *bi-ampliata*. Purcell. 116.  
 — *bimaculata*. Purcell. 116.  
 — *brunneipes*. Purcell. 115.  
 — *cretata*. Purcell. 116.  
 — *dregei*. Purcell. 116.  
 — *gracilitarsis*. Purcell. 116.  
 — *lativittata*. Purcell. 115.  
 — *lightfooti*. Purcell. 116.  
 — *nivosa*. Purcell. 116.  
 — *oneili*. Purcell. 116.  
 — *patricki*. Purcell. 116.  
 — *schreineri*. Purcell. 115.  
 — *tenuissima*. Purcell. 116.  
 — *umtatica*. Purcell. 116.
- MACOPAEUS** [Araneida].  
 — *madagascarensis*. Peckham and Peckham. 95.
- MACROPSALIS** [Phalangida].  
 — *hoggi*. Pocock. 98.
- MACROTHELE** [Araneida].  
 — *cretica*. Kulczyński. 63.
- MARGAROMMA** [Aranidae].  
 — *marginatum*. Simon. 129.  
 — *soligena*. Simon. 129.  
 — *torquatum*. Simon. 129.
- MASSAGRIS** [Araneida].  
 — *mirificus*. Peckham and Peckham. 95.
- Mecostetrabus** n. gen. [Araneida]. Simon. 133.  
 — *aciculus*. Simon. 133.
- Mecynogea** n. gen. [Araneida].  
 — Simon. 130.  
 — *bigibba*. Simon. 130.  
 — *tucumana*. Simon. 130.
- Melanoblossia** n. gen. [Solifugae].  
 — Purcell. 114.  
 — *braunsi*. Purcell. 114.  
 — *globiceps*. Purcell. 114.
- MENDOZA** [Araneida].  
 — *carlinii*. Peckham and Peckham. 95.
- Mengea** n. nom. [Araneida]. Cambridge. 24.
- Mesilla** n. gen. [Araneida]. Simon. 130.  
 — *vittiventris*. Simon. 130.
- METACYRBA** [Araneida].  
 — *pictipes*. Banks. 3.
- METRIOPELMA** [Araneida].  
 — *trinitatis*. Pocock. 100.  
 — *velox*. Pocock. 100.
- MEXCALA** [Araneida].  
 — *elegans*. Peckham and Peckham. 95.
- Minotauria** n. gen. [Araneida].  
 — Kulczyński. 63.  
 — *attemei*. Kulczyński. 63.
- MODUNDA** [Araneida].  
 — *aperta*. Peckham and Peckham. 95.
- MOGGRIDGEA** [Araneida].  
 — *coegensis*. Purcell. 116.  
 — *leipolati*. Purcell. 116.  
 — *mordax*. Purcell. 116.  
 — *quercina*. Simon. 130.  
 — *terricola*. Simon. 130.  
 — *seticoxa*. Purcell. 115.
- MONOCENTROPUS** [Araneida].  
 — *longimanus*. Pocock. 101.

- Monoxymma** n. gen. [Phalangida].  
 ——— Pocock. 104.  
 ——— *spinatum*. Pocock. 104.
- MYRMARACHNE** [Araneida].  
 ——— *marshallii*. Peckham and Peckham. 95.  
 ——— *solitarius*. Peckham and Peckham. 95.
- Myrmonysus** n. gen. [Acari]. Berlese. 7.  
 ——— *acuminatus*. Berlese. 7.  
 ——— *brachiatus*. Berlese. 7.  
 ——— *diplogenus*. Berlese. 7.
- MYRO** [Araneida].  
 ——— *maculatus*. Simon. 130.
- MYRTALE** [Araneida].  
 ——— *alluaudi*. Simon. 132.
- Nanacarus** n. gen. [Acari]. Oudemans. 89.  
 ——— *minutus*. Oudemans. 89.
- NEBO** [Scorpionida].  
 ——— *hierichonticus*: *pallidimanus* n. subsp. Pocock. 101.
- NEMESIA** [Araneida].  
 ——— *arboricola*. Pocock. 102.
- Nemospiza** n. gen. [Araneida]. Simon. 130.  
 ——— *conspicillata*. Simon. 130.
- Neosparassus** n. gen. [Araneida]. Hogg. 50.  
 ——— *magareyi*. Hogg. 50.  
 ——— *thoracicus*. Hogg. 50.
- OBISIUM** [Chernetida].  
 ——— *brevifemoratum*. Ellingsen. 37.
- ODO** [Araneidae].  
 ——— *guttipes*. Simon. 130.
- Ommatauxesis** n. gen. [Araneida]. Simon. 130.  
 ——— *macrops*. Simon. 130.
- OMOEDUS** [Araneida].  
 ——— *piceus*. Simon. 129.
- Opilioacarus** n. gen. [Acari]. With. 156.  
 ——— *segmentatus*. With. 156.
- OREONETIDES** [Araneida].  
 ——— *imbecillior*. Dahl. 29.  
 ——— *validior*. Dahl. 29.
- ORIBATA** [Acari].  
 ——— *myrmobates*. Berlese. 7.  
 ——— *oviformis*. Dementjew. 48.
- ORTHOBULA** [Araneida].  
 ——— *sicca*. Simon. 130.
- PADILLOTHORAX** [Araneida].  
 ——— *taprobanicus*. Simon. 129.
- PAMPHOBETUS** [Araneida].  
 ——— *antinous*. Pocock. 100.  
 ——— *insignis*. Pocock. 100.  
 ——— *ornatus*. Pocock. 100.
- PANARETUS** [Araneida].  
 ——— *nirounensis*. Simon. 134.
- PANTOPHALIS** [Phalangida].  
 ——— *albipalpis*. Pocock. 98.  
 ——— *coronata*. Pocock. 104.  
 ——— *jenningsi*. Pocock. 104.  
 ——— *nigripalpis*. Pocock. 98.  
 ——— *spiculosa* n. subsp. Pocock. 98.  
 ——— *trippi*. Pocock. 104.
- Paradosenus** n. gen. [Araneida]. Cambridge. 17.  
 ——— *nigricans*. Cambridge. 17.
- PARAGALEODES** [Solifugae].  
 ——— *erlangeri*. Kraepelin. 61.
- Parajotus** n. gen. [Araneida]. Peckham and Peckham. 95.  
 ——— *obscurifemoratus*. Peckham and Peckham. 95.
- PARDOSA** [Araneida].  
 ——— *clavipalpis*. Purcell. 116.  
 ——— *crassipalpis*. Purcell. 116.  
 ——— *foveolata*. Purcell. 116.  
 ——— *leipoldti*. Purcell. 116.  
 ——— *lycosina*. Purcell. 116.  
 ——— *schreineri*. Purcell. 116.  
 ——— *spilota*. Pocock. 109.  
 ——— *umtlica*. Purcell. 116.
- Paromostola** n. gen. [Araneida]. Purcell. 116.  
 ——— *abernethyi*. Purcell. 116.
- PARTONA** [Araneida].  
 ——— *euchirus*. Simon. 129.
- Patrera** n. gen. [Araneida]. Simon. 130.  
 ——— *fulvastra*. Simon. 130.
- PEDIANA** [Araneida].  
 ——— *occidentalis*. Hogg. 50.  
 ——— *tenuis*. Hogg. 50.
- PEDICULOIDES** [Acari].  
 ——— *formicarum*. Berlese. 7.  
 ——— *modestus*. Berlese. 7.
- PELITNUS** [Phalangida].  
 ——— *piliger*. Pocock. 98.  
 ——— *pulvillatus*. Pocock. 98.
- PELLENES** [Araneida].  
 ——— *beanii*. Peckham and Peckham. 95.  
 ——— *rufoclypeata*. Peckham and Peckham. 95.

- Penestomus** n. gen. [Araneida]. Simon.  
135.  
—— *planus*. Simon. 135.
- PENSACOLA** [Araneida].  
—— *castanea*. Simon. 129.  
—— *cyaneochirus*. Simon. 129.  
—— *gaujoni*. Simon. 129.  
—— *murina*. Simon. 129.  
—— *ornata*. Simon. 129.
- Pertica** n. gen. [Araneida]. Simon.  
130.  
—— *badia*. Simon. 130.
- Pescennina** n. gen. [Araneida]. Simon.  
130.  
—— *epularis*. Simon. 130.
- PHALANGIUM** [Phalangida].  
—— *bettoni*. Pocock. 104.  
—— *leighi*. Pocock. 98.  
—— *leppanae*. Pocock. 98.  
—— *palmatimanus*. Pocock. 98.  
—— *spenceri*. Pocock. 98.  
—— *telifrons*. Pocock. 98.
- PHILAEUS** [Araneida].  
—— *manicus*. Peckham and  
Peckham. 95.
- PHLEGRA** [Araneida].  
—— *imperiola*. Peckham and  
Peckham. 95.
- PHRYNARACHNE** [Araneida].  
—— *clavigera*. Simon. 132.  
—— *pusiola*. Simon. 132.  
—— *rothschildi*. Pocock and  
Rothschild. 110.
- PHRYXOTRICHUS** [Araneida].  
—— *auratus*. Pocock. 100.  
—— *parvulus*. Pocock. 100.
- Plastonomus** n. gen. [Araneida]. Simon.  
132.  
—— *octoguttatus*. Simon. 132.
- PLATYOIDES** [Araneida].  
—— *grandidieri*. Simon. 132.
- Plesiometes** n. gen. [Araneida]. Cam-  
bridge. 21.
- Plistobunus** n. gen. [Phalangida].  
Pocock. 104.  
—— *rapaz*. Pocock. 104.
- POCHYTA** [Araneida].  
—— *solers*. Peckham and Peck-  
ham. 95.
- PODACTIS** [Phalangida].  
—— *pictulus*. Pocock. 104.
- Poecilomigas** n. gen. [Araneida]. Simon.  
130.  
—— *pulehripes*. Simon. 130.
- POBOILOBCHESTES** [Araneida].  
—— *decoratus*. Simon. 129.
- POLEMUS** [Araneida].  
—— *chrisochirus*. Simon. 129.  
—— *galeatus*. Simon. 129.  
—— *squamulatus*. Simon. 129.
- PORTIA** [Araneida].  
—— *durbanii*. Peckham and  
Peckham. 95.
- Prionostemma** n. nom. [Phalangida].  
Pocock. 104.  
—— *bicolor*. Pocock. 104.  
—— *citrinum*. Pocock. 104.  
—— *insculptum*. Pocock. 104.  
—— *scintillans*. Pocock. 104.
- Proevippa** n. gen. [Araneida]. Purcell.  
116.  
—— *lightfooti*. Purcell. 116.
- PROSTHESIMA** [Araneida].  
—— *cretica*. Kulczyński. 63.
- PSALMOPOEUS** [Araneida].  
—— *ecclesiasticus*. Pocock. 100.  
—— *emeraldus*. Pocock. 100.  
—— *plantaris*. Pocock. 100.
- Pseudauximus** n. gen. [Araneida]. Simon.  
135.  
—— *reticulatus*. Simon. 135.
- PSEUDICIUS** [Araneida].  
—— *africanus*. Peckham and  
Peckham. 95.  
—— *bipunctatus*. Peckham and  
Peckham. 95.  
—— *braunsi*. Peckham and Peck-  
ham. 95.  
—— *histrionicus*. Simon. 129.  
—— *zebra*. Simon. 129.
- Pterartoria** n. gen. [Araneida]. Purcell.  
116.  
—— *caldaria*. Purcell. 116.  
—— *fissivittata*. Purcell. 116.  
—— *flavolimbata*. Purcell. 116.  
—— *polysticta*. Purcell. 116.  
—— *sagae*. Purcell. 116.  
—— *suberucifera*. Purcell. 116.
- PTERINOPELMA** [Araneida].  
—— *saltator*. Pocock. 100.  
—— *tigrinum*. Pocock. 100.
- Pterotricha** n. nom. [Araneida]. Kul-  
czyński. 63.
- PTONACANTHA** [Araneida].  
—— *fuscata*. Simon. 132.
- RHAGODES** [Solifugae].  
—— *buryi*. Pocock. 101.  
—— *rothschildi*. Pocock. 101.

- REHNE** [Araneida].  
     *biguttata*. Peckham and Peckham. 95.  
     *flavicomans*. Simon. 129.
- RHIPICEPHALUS** [Acari].  
     *erlangeri*. Neumann. 82.  
     *hilgerti*. Neumann. 82.  
     *shiplei*. Neumann. 82.
- RHITYMNA** [Araneida].  
     *fasciolata*. Simon. 132.
- RHIZOLYPHUS** [Acari].  
     *agilis*. Michael. 78.  
     *caucasicus*. Dementjew. 35.  
     *minor*. Dementjew. 35.
- RUBRIUS** [Araneida].  
     *milvinus*. Simon. 130.  
     *paroculus*. Simon. 130.  
     *periscelis*. Simon. 130.
- RUNCINIA** [Araneida].  
     *annamita*. Simon. 133.
- SAITIS** [Araneida].  
     *leighii*. Peckham and Peckham. 95.  
     *mundus*. Peckham and Peckham. 95.  
     *sapiens*. Peckham and Peckham. 95.
- SASSACUS** [Araneida].  
     *arcuatus*. Simon. 129.  
     *aurantiacus*. Simon. 129.  
     *biaccentuatus*. Simon. 129.  
     *marginellus*. Simon. 129.  
     *resplendens*. Simon. 129.  
     *trochilus*. Simon. 129.
- SENOOULUS** [Araneida].  
     *albidus*. Cambridge. 17.
- Seothyra** n. gen. [Araneida]. Purcell. 115.  
     *schreineri*. Purcell. 115.
- SINGA** [Araneida].  
     *crevii*. Banks. 3.
- SITTACUS** [Araneida].  
     *designatus*. Peckham and Peckham. 95.  
     *uphamii*. Peckham and Peckham. 95.
- SMERMISIA** [Araneida].  
     *tullgreni*. Simon. 134.
- SOLFUGA** [Solifugae].  
     *collinita*. Purcell. 114.  
     *junodi*. Purcell. 113.  
     *spiralicornis*. Purcell. 113.
- Sonoita** n. gen. [Araneida]. Peckham and Peckham. 95.  
     *lightfootii*. Peckham and Peckham. 95.
- Sorenseneila** n. gen. [Phalangida]. Pocock. 98.  
     *bicornis*. Pocock. 104.  
     *prehensor*. Pocock. 98.
- SPARASSUS** [Araneida].  
     *socotranus*. Pocock. 109.
- SPHINGIUS** [Araneida].  
     *tristiculus*. Simon. 130.
- STASIMOPUS** [Araneida].  
     *bimaculatus*. Purcell. 116.  
     *brevipalpis*. Purcell. 116.  
     *erythrognaethus*. Purcell. 116.  
     *kentanicus*. Purcell. 116.  
     *kolbei*. Purcell. 116.  
     *quadrati-maculatus*. Purcell. 116.  
     *schreineri*. Purcell. 115.  
     *umtaticus*. Purcell. 116.  
     *unispinoeus*. Purcell. 115.
- STENAEULURILLUS** [Araneida].  
     *leucogramma*. Simon. 129.
- Stiphidion** n. gen. [Araneida]. Simon. 135.  
     *facetum*. Simon. 135.
- TAGULINUS** [Araneida].  
     *histrion*. Simon. 133.
- TARSONEMUS** [Acari].  
     *soricicola*. Oudemans. 89.
- Tasata** n. gen. [Araneida]. Simon. 130.  
     *parcepunctata*. Simon. 130.
- TELAMONIA** [Araneida].  
     *aequipes*. Peckham and Peckham. 95.  
     *argenteola*. Simon. 133.  
     *leucaspis*. Simon. 134.  
     *virgata*. Simon. 133.
- TETRAGNATHA** [Araneida].  
     *alba*. Cambridge. 21.  
     *banksi* n. nom. Cambridge. 21.  
     *bidens*. Cambridge. 21.  
     *dentigera*. Cambridge. 21.  
     *granti*. Pocock. 109.  
     *pallascens* n. nom. Cambridge. 21.
- TEXTRIX** [Araneida].  
     *cretica*. Kulczyński. 63.
- THAMMAOA** [Araneida].  
     *coriacea*. Simon. 129.  
     *nigritarsis*. Simon. 129.



- THANATUS** [Araneida].  
 ——— *forbesii*. Pocock. 109.  
 ——— *vulgaris*: *cretica* n. subsp.  
 Kulczyński. 63.
- THANATIDIUS** [Araneida].  
 ——— *spinipes*. Cambridge. 17.
- THAUMASIA** [Araneida].  
 ——— *annulipes*. Cambridge. 17.
- THELECHORIS** [Araneida].  
 ——— *australis*. Purcell. 116.
- THERIDIOSOMA** [Araneida].  
 ——— *blaisei*. Simon. 133.
- THERIDIUM** [Araneida].  
 ——— *eigenmanni*. Banks. 153.
- THROMBIDIUM** [Acari].  
 ——— *norm*. Oudemans. 89.  
 ——— *russicum*. Oudemans. 88.
- THYENE** [Araneida].  
 ——— *australis*. Peckham and  
 Peckham. 95.  
 ——— *coronata*. Simon. 129.  
 ——— *erudelis*. Peckham and  
 Peckham. 95.  
 ——— *leighii*. Peckham and Peck-  
 ham. 95.  
 ——— *natallii*. Peckham and Peck-  
 ham. 95.  
 ——— *ogdenii*. Peckham and Peck-  
 ham. 95.  
 ——— *pulchra*. Peckham and Peck-  
 ham. 95.  
 ——— *vittata*. Simon. 129.
- Thyennula** n. gen. [Araneida]. Simon.  
 129.  
 ——— *juvenca*. Simon. 129.
- TOMOPISTHES** [Araneida].  
 ——— *aethiops*. Simon. 134.
- TORANIA** [Araneida].  
 ——— *scutata*. Pocock. 103.
- Toreus** n. gen. [Solifugae]. Purcell.  
 114.
- TRABAEA** [Araneida].  
 ——— *lineata*. Purcell. 116.  
 ——— *nigriceps*. Purcell. 116.  
 ——— *unicolor*. Purcell. 116.  
 ——— *varia*. Purcell. 116.
- TRECHALEA** [Araneida].  
 ——— *amazonica*. Cambridge. 17.  
 ——— *ellacombei*. Cambridge. 17.  
 ——— *keyserlingi*. Cambridge. 17.
- TRIAENOBUNUS** [Phalangida].  
 ——— *pectinatus*. Pocock. 98.
- TRIAENONYX** [Phalangida].  
 ——— *aspera*. Pocock. 98.  
 ——— *coriacea*. Pocock. 98.  
 ——— *sublaevis*. Pocock. 98.
- TRICHOOTARSUS** [Acari].  
 ——— *helenae*. Oudemans. 88.  
 ——— *hipposiderus*. Oudemans.  
 88.
- TROGULUS** [Phalangida].  
 ——— *corcyraeus*. Dahl. 32.  
 ——— *graeus*. Dahl. 32.
- TROMBIDIUM** [Acari].  
 ——— *vagabundum*. Berlese. 7.
- Tularosa** n. gen. [Araneida]. Peckham  
 and Peckham. 95.  
 ——— *ogdenii*. Peckham and  
 Peckham. 95.
- TYPOSTOLA** [Araneida].  
 ——— *broomi*. Hogg. 50.  
 ——— *magnifica*. Hogg. 50.  
 ——— *major*. Hogg. 50.
- TYROGLYPHUS** [Acari].  
 ——— *fucorum*. Oudemans. 89.  
 ——— *heterocomus*. Michael. 78.
- UROPODA** [Acari].  
 ——— *distinguenda*. Berlese. 7.  
 ——— *leonardiana*. Berlese. 7.  
 ——— *wagneri*. Oudemans. 88.
- Valloa** [Velloa?] n. gen. [Araneida].  
 Peckham and Peckham. 95.  
 ——— *elegans*. Peckham and  
 Peckham. 95.  
 ——— *modesta*. Peckham and  
 Peckham. 95.
- VICIRIA** [Araneida].  
 ——— *alba*. Peckham and Peck-  
 ham. 95.  
 ——— *chrysophaea*. Simon. 133.  
 ——— *diademata*. Simon. 129.  
 ——— *epileuca*. Simon. 133.  
 ——— *equestris*. Simon. 133.  
 ——— *flavipes*. Peckham and  
 Peckham. 95.  
 ——— *lupula*. Simon. 129.  
 ——— *morigera*. Peckham and  
 Peckham. 95.  
 ——— *mustela*. Simon. 129.  
 ——— *niveimana*. Simon. 129.  
 ——— *parmata*. Peckham and  
 Peckham. 95.  
 ——— *polysticta*. Simon. 129.  
 ——— *semicoccinea*. Simon. 129.  
 ——— *sponsa*. Simon. 129.  
 ——— *terebrifera*: *nigrina* n. subsp.  
 Simon. 133.

## VINNIUS [Araneida].

- *calcarifer*. Simon. 129.  
 ——— *carinatus*. Simon. 129.  
 ——— *maculaticeps*. Simon. 129.  
 ——— *uncatus*. Simon. 129.

## WULFILA [Araneida].

- *parvula*. Banks. 3.

## XENESTHIS [Araneida].

- *monstrosus*. Pocock. 100.

## XYSTICUS [Araneida].

- *hepaticus*. Simon. 132.

## ZALEPTUS [Phalangida].

- *fuscus*. With. 155.  
 ——— *hirsutus*. With. 155.  
 ——— *minutus*. With. 155.  
 ——— *thorelli*. With. 155.

## ZOPHORYOTES n. gen. [Araneida]. Simon. 131.

- *flavopilosus*. Simon. 131.



3203-3231 PROTOTRACHEATA (or ONYCHOPHORA).

TITLES.

**Bouvier, E. L.** Un Péripate de Costa-Rica. Paris, Bul. soc. ent., 1902, (239-240). [3231 3227 *hb*]. 1

Onychophore nouveau de Costa-Rica. Paris, Bul. soc. ent., 1902, (258). [3231 3227 *hb*]. 2

Sur le *Peripatus tholloni*, extrait d'une lettre adressée de Ngömö (Ogôoué) par M. le Pasteur Haug à M. le professeur Bouvier. Bul. Muséum, Paris, 1903, (221 - 222). [3231 3227 *fd* 3219]. 3

**Bruntz, L.** Excrétion et phagocytose chez les Onychophores. Paris, C.-R. Acad. sci., 136, 1903, (1148-1150). [3211]. 4

**Evans, Richard.** On *Peripatus guianensis* (sp. nov.). Q. J. Microsc. Sci., London, (N. Ser.), 47, 1903, (145-160, pls. XIII, XIV); [abstract], London, J. R. Microsc. Soc., 1903, (608 - 609). [3231]. 5

**Gaskell, W. H.** The origin of Vertebrates deduced from the study of *Ammocoetes*. XI. The origin of the vertebrate body cavity and excretory organs; and the meaning of the somites of the trunk and of the ductless glands. J. Anat. Physiol., London, (Ser. 2), 17, 1903, (168-219, with fig.). [0207 0223 2807 3223 5223 5431]. 6

**Montgomery, Tho[ma]s H[arrison] jun.** The spermatogenesis of *Peripatus* (*Peripatopsis*) *balfouri* up to the formation of the spermatid. [With bibliography.] [Reprint.] Philadelphia, Cont. Zool. Lab., Univ. Pa., 1901, 1902, (277-368, with pl.). [0215 3215 3231]. 7

3211 PHYSIOLOGY.

**Bruntz, L.** Excrétion et phagocytose chez les Onychophores. Paris, C.-R. Acad. sci., 136, 1903, (1148-1150).

3215 DEVELOPMENT.

SPERMATOGENESIS.

**Montgomery, T[homa]s H[arrison], jun.** The spermatogenesis of *Peripatus* (*Peripatopsis*) *balfouri* up to the formation of the spermatid. [With bibliography.] [Reprint.] Philadelphia, Cont. Zool. Lab., Univ. Pa., 1901, 1902, (277-368, with pl.).

3219 ETHOLOGY.

**Bouvier, D. L.** Sur le *Peripatus tholloni*, extrait d'une lettre adressée de Ngömö (Ogôoué) par M. le Pasteur Haug à M. le professeur Bouvier. Bul. Muséum, Paris, 1903, (221-222).

3223 ETIOLOGY.

**Gaskell, Walter H.** On the origin of vertebrates deduced from the study *Ammocoetes*. Part XI. J. Anat. Physiol., London, 37, 1903, (168-219, 6 figs. in text).

3227 GEOGRAPHICAL DISTRIBUTION.

*f* AFRICA.

*fd* WEST AFRICA.

**Bouvier, D. L.** Sur le *Peripatus tholloni*, extrait d'une lettre adressée de

Ngõmõ (Ogõoué) par M. le Pasteur Haug à M. le professeur Bouvier. Bul. Muséum, Paris, 1903, (221-222).

**h CENTRAL AND SOUTH AMERICA.**

**hb CENTRAL AMERICA.**

**Bouvier, E. L.** Un Péripate de Costa-Rica. Paris, Bul. soc. ent., 1902, (239-240).

——— Onychophore nouveau de Costa-Rica. *l.c.* (258).

*Peripatus biolleyi* n. sp. Costa-Rica. **Bouvier, E. L.** Paris, Bul. soc. ent., 1902, (258).

——— *guianensis* n. sp. British Guiana. **Evans, R.** London, Q. J. Microsc. Sci., (N. Ser.), 47, 1903, (145-160, pls. XIII, XIV).

——— *nicaraguensis* var. *isthmicola* n. var. Costa-Rica. **Bouvier, E. L.** Paris, Bul. soc. ent., 1902, (239-240).

——— *tholloni*. **Bouvier, D. L.** Bul. Muséum, Paris, 1903, (221-222).

**3231 TAXONOMY AND SYSTEMATIC.**

*Peripatus balfouri*, spermatogenesis. **Montgomery, T. H., jun.** [Reprint.] Philadelphia, Cont. Zool. Lab., Univ. Pa., 1901, 1902, (277-368, with pl.).

**LIST OF NEW GENERA AND SPECIES.**

**PERIPATUS.**

- *biolleyi*. **Bouvier.** 2.
- *guianensis*. **Evans.** 5.
- *nicaraguensis* var. *isthmicola* n. var. **Bouvier.** 1.

## 3403-3431 MYRIOPODA.

## TITLES.

**Attems, Carl Graf.** Beiträge zur Myriopodenkunde. Zool. Jahrb., Jena, Abt. f. Syst., **18**, 1903, (63-154, mit 7 Taf.). [3431]. 1

——— Synopsis der Geophiliden. Zool. Jahrb., Jena, Abt. f. Syst., **18**, 1903, (155-302, mit 5 Taf.). [3407 3431]. 2

——— Myriopoden. (Fauna Arctica, **3**.) Jena, 1903, (33-57). [3427 k 3431]. 3

**Blackman, Maulsby W.** The spermatogenesis of the Myriapoda. II. On the chromatin in the spermatocytes of *Scelopendra heros*. [With bibliography]. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **5**, 1903, (187-217, with text fig.). [0215 3415 3431]. 4

**Blanchard, Raphaël.** Nouvelles observations sur le pseudo-parasitisme des myriapodes chez l'homme. Arch. parasit., Paris, **6**, 1902, (245-256, av. 2 fig.). [3419]. 5

**Brookhausen, H.** Ueber leuchtende Skolopender. Münster, Jahresber. Prov.-Ver. Wiss., **31**, (1902-03), 1903, (163-164); Naturfreund, Witten, **1**, 1902, (45-46). [3419]. 6

**Brülemann, Henry W.** Myriapodes recueillis par M. E. Goumelle au Brésil. Paris, Ann. soc. ent., **71**, (2<sup>e</sup> semest.), 1902, [1903], (649-694, av. fig. et. pl.). [3431 3427 hh]. 7

——— Myriapodes recueillis à l'île de Cocos, par M. le professeur P. Biolley. Paris, Ann. soc. ent., **72**, 1903, (128-143, av. fig.). [3431 3427 mb]. 8

——— Myriapodes recueillis au Pará par monsieur le prof. E. A. Goeldi,

directeur du musée. Zool. Anz., Leipzig, **26**, 1903, (177-191). [3427 hh 3431]. 9

**Bruntz, L.** Sur la présence de reins labiaux et d'un organe phagocytaire chez les Diplopodes. Paris, C.-R. Acad. sci., **136**, 1903, (57-59); [abstract], London, J. R. Microsc. Soc., **1903**, (177). [3407 3431]. 10

**Carl, Joh.** Exotische Polydesmiden. Rev. Suisse Zool., Genève, **10**, 1902, (563-679). [3427 e 3427 ik 3431]. 11

——— Revision amerikanischer Polydesmiden. Rev. Suisse Zool., Genève, **11**, 1903, (543-562, av. 2 pls.). [3431]. 12

**Causard, M.** Recherches sur la respiration branchiale chez les Myriapodes diplopodes. Bul. sci. France-Belgique, Paris, **37**, 1903, (461-479, av. 1 pl.). [3411 3407]. 13

**Chalande, Jules.** Contribution à la faune des Myriapodes de France. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (221). [3431 3427 df]. 14

**Chamberlin, Ralph V[ary].** *Henicope dolichopus*, a new chilopod from Utah. Washington, D.C., Smithsonian Inst., Nation. Mus. Proc., **24**, 1902, (797-800). [3427 gi 3431]. 15

——— Myriopods from Beulah, New Mexico. Philadelphia, Pa., Proc. Acad. Nat. Sci., **55**, 1903, (35-40). [3427 gi 3431]. 16

——— New *Lithobii* from California and Oregon. Philadelphia, Pa., Proc. Acad. Nat. Sci., **55**, 1903, (152-160). [3427 gi 3431]. 17

**Chamberlin, Ralph V**[ary]. *Henicops*. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (335). [3431]. 18

**Duboscq, O. v. Léger, L.**

**Ellingsen, Edw.** More on Norwegian Myriopods? (Norw.) Kristiania, Forh. Vid. Selsk., No. 6, 1903, (11). [3427 da]. 19

**Faas, H**[enri]. Myriopodes du Valais. Lausanne, Bul. Soc. Sci. Nat., 38, 1902, (XXXV-XXXVI); Arch. Sci. Phys., Genève, (sér. 4), 14, 1902, (73-74). [3427 di]. 20

La faune myriopodique du Valais. Aarau, Verh. Schweiz. Natf. Ges., 85, 1902, (80-81); Arch. Sci. Phys., Genève, (sér. 4), 14, 1902, (554-556). [3427 di]. 21

Myriopodes du Valais (Vallée du Rhône et vallées latérales). Rev. Suisse Zool., Genève, 10, 1902, (31-164, av. 3 pl.). [3427 di 3419 3423]. 22

**Hansen, H. T.** The genera and species of the order Symphyla. Q. J. Microsc. Sci., London, (N. Ser.), 47, 1903, (1-101, pls. I-VII). [3431]. 23

**Hemenway, Josephine.** The structure of the eye of *Scutigera* (*Cermatia*) *forceps* [with bibliography]. [Reprint from Wood's Holl, Mass., Mar. Biol. Lab. Bull., 1, 1900, No. 4, (205-213)]. Bryn Mawr, Pa., Bryn Mawr Coll. Monogr., (Repr. Ser.), 1, 1901, (205-213). [3407 3431]. 24

**J[Arvi], T. H.** Über im Meerwasser lebende Myriopoden. Luonnon Ystävä, Helsingfors, 1903, 11-12, (303-304). [3419]. 25

**Lécaillon, A.** Sur le développement de l'ovaire de *Polyzenus lagurus* de Geer. Paris, C.-R. Acad. sci., 136, 1903, (1691-1693). [0215 3415 3431]. 26

**Léger, L. et Duboscq, O.** Les grégarines et l'épithélium intestinal chez les Trachéates. Arch. parasit., Paris, 6, 1902, (377-473, av. fig. et 5 pls.). [0419 0431 2419 3419]. 27

**Lignau, N.** Die Myriopoden der Pontusküsten des Caucasus. (Russ.) Odessa, Ann. Soc. Nat., 25, Liefg 1, 1903, (82-125), deutsches Rés., (126-148, Taf. I-II). [3407 3427 3431]. 28

**Marlatt, C**[harles] L[ester]. The house centipede (*Scutigera forceps* Raf.) [Reprint from Washington, D.C., Bull.

U. S. Dept. Agric. Div. Ent., (N. Ser.), No. 4, (47-50)]. Washington, D.C., Cir. U. S. Dept. Agric. Div. Ent., (Ser. 2), No. 48, 1902, (4). [3419 3431]. 29

**Méhely, Lajos.** Beiträge zur Fauna von Deliblót und des Lokoa-Gebirges. (Ungarisch) Állatt. Közlem., Budapest, 2, 1903, (93-104). [0227 dk 3431 5831 5631 6031]. 30

**Morse, Max.** Unusual abundance of a Myriapod. *Parajulus pennsylvanicus* (Brandt). Science, New York, N.Y., (N. Ser.), 18, 1903, (59-60). [3419 3431]. 31

**Muralevič, V. S.** Zur Biologie der *Cermatia* (*Scutigera*) *coleoprata* Newp. (Russ.) Moskva, Trd. kruž. izal. russ. prir., 1, 1903, (101-106). [3419 3431]. 32

**Pocock, R. I.** A new clasping-organ in a Centipede. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (621-624, 2 figs. in text); [abstract], London, J. R. Microsc. Soc., 1903, (496). [3407 3431]. 33

Remarks upon the morphology and systematics of certain Chilognathous Diplopoda. I. On the terminology and evolution of the gonopods and of the penis. II. Descriptions of new forms. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (515-532, figs. I-III in text). [3407 3423 3431]. 34

Class Diplopoda. Biol. Centr.-Amer., London, 1903, (41-56, pls. IV, V, 3 figs. in text). [3427 hb 3431]. 35

Myriapoda. In "The Natural History of Sokotra and Abd-el-Kuri. . . ." Edited by Henry O. Forbes. Special Bull. Liverp. Mus. 1903, (427-439, pl. XXVI, fig. 5, 2 figs. in text). Quoted hereafter as Nat. Hist. Sokotra. [3427 ff 3431]. 36

**Rossi, Giovanni Luigi.** Sulla respirazione cutanea e branchiale dei Diplopodi. Zool. Anz., Leipzig, 27, 1903, (150-156). [3407 3411]. 37

Le glandole odorifere dell'*Iulus communis*. Zs. wiss. Zool., Leipzig, 74, 1903, (64-80, mit 1 Taf.); [abstract], London, J. R. Microsc. Soc., 1903, (297). [3407 3431]. 38

Sulla organizzazione dei Miriapodi. Roma, Ric. Lab. anat. norm., 9, fasc. 1<sup>a</sup>, 1902, (5-88, con tav. e fig.). [3407 3431]. 39

**Rossi, Giovanni Luigi.** Sull'apparecchio digerente dell' *Iulus communis*. Nota preliminare. Firenze, Boll. Soc. Entom., **34**, 1902, (3-9, con tav.). [3407 3431]. 40

**Rothenbühler, H.** Zur Myriapodenfauna der Schweiz. II. Beitrag. Myriapoden des bündnerischen Rheingebiets. Rev. Suisse Zool., Genève, **10**, 1902, (549-561). [3427 di]. 41

**Sainte-Claire Deville, J.** Exploration entomologique des grottes des Alpes-Maritimes. Ann. Soc. ent., Paris, **71**, 1902, [1903]. (695-709, av. fig.). [2431 2427 df 2631 3031 3431 3631 3331 4831]. 42

**Verhoeff, Karl W.** Ueber die Interkalarsegmente der Chilopoden, mit Berücksichtigung der Zwischensegmente der Insekten. Arch. Natg., Berlin, **69**, Bd 1, 1903, (427-441, mit 1 Taf.). [3407 2407]. 43

Chilopoden von Südsteiermark, Krain und Kroatien. Berlin, SitzBer. Ges. natf. Freunde, **1902**, (90-93). [3427 dk 3431]. 44

Ueber Diplopoden. 1. Aufsatz: Formen aus Tirol, Italien und Cypern. 2. Aufs.: Griechische Tausendfüßler. Arch. Natg., Berlin, **68**, Bd 1, 1902, (175-198, mit 1 Taf.); **69**, Bd 1, 1903, (135-154, mit 2 Taf.); 3. Aufsatz, *ib.*, (183-196, mit 2 Taf.). [3407 3127 dh dk dl 3131]. 45

**Williams, Stephen R.** Variation in *Lithobius forficatus*. [With bibliography]. Amer. Nat., Boston, Mass., **31**, 1903, (299-312); [abstract], London, J. R. Microsc. Soc., **1903**, (608). [3423 3431]. 46

## 3407 STRUCTURE.

### GENERAL.

**Pocock, R. I.** Remarks upon the morphology and systematics of certain Chilognathous Diplopoda. I. On the terminology and evolution of the gonopods and of the penis. II. Descriptions of new forms. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (515-532, figs. I-III in text).

**Rossi, G.** Sulla organizzazione dei Miriapodi. Roma, Ric. Lab. anat. norm. **9**, fasc. 1°, 1902, (5-88, con tav. e fig.).

(N 2-9053)

### EXTERNAL MORPHOLOGY.

**Attems, Carl Graf.** Synopsis der Geophiliden. Zool. Jahrb., Jena, Abt. f. Syst., **18**, 1903, (155-302, mit 5 Taf.).

**Lignan, N.** Die Myriopoden der Pontusküsten des Caucasus. (Russ.). Odessa, Ann. Soc. Nat., **25**, Liefg. 1, 1903, (82-125), deutsches Res., (126-148, Taf. I-II).

**Pocock, R. I.** A new clasp-organ in a Centipede. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (621-624, 2 figs. in text.); [abstract], London, J. R. Microsc. Soc., **1903**, (496).

**Verhoeff, Karl W.** Ueber die Interkalarsegmente der Chilopoden, mit Berücksichtigung der Zwischensegmente der Insekten. Arch. Natg., Berlin, **69**, Bd 1, 1903, (427-441, mit 1 Taf.).

### ALIMENTARY SYSTEM.

**Rossi, G.** Sull'apparecchio digerente dell' *Iulus communis*. Nota preliminare. Firenze, Boll. Soc. Entom., **34**, 1902, (3-9, con tav.).

### CIRCULATORY AND RESPIRATORY ORGANS.

**Causard, M.** Recherches sur la respiration branchiale chez les Myriapodes diplopodes. Bul. sci. France-Belgique, Paris, **37**, 1903, (461-479, av. 1 pl.).

**Rossi, Giovanni Luigi.** Sulla respirazione cutanea e branchiale dei Diplopodi. Zool. Anz., Leipzig, **27**, 1903, (150-156).

### SPECIAL GLANDS.

**Rossi, Giovanni.** Le glandole odorifere dell' *Iulus communis*. Zs. wiss. Zool., Leipzig, **74**, 1903, (64-80, mit 1 Taf.); [abstract], London, J. R. Microsc. Soc., **1903**, (297).

### REPRODUCTIVE ORGANS.

**Verhoeff, Karl W.** Ueber Diplopoden. 3. Aufsatz. Arch. Natg., Berlin, **69**, Bd 1, 1903, (183-196, mit 2 Taf.).

### EXCRETORY ORGANS.

**Brunts, L.** Sur la présence de reins labiaux et d'un organe phagocytaire chez les Diplopodes. Paris, C.-R. Acad. sci., **136**, 1903, (57-59); [abstract], London, J. R. Microsc. Soc., **1903**, (177).



## 3411 PHYSIOLOGY.

## RESPIRATION.

**Causard, M.** Recherches sur la respiration branchiale chez les Myriapodes diplopoies. *Bul. sci. France, Belgique, Paris*, **37**, 1903, (461-479, av. 1 pl.).

**Rossi, Giovanni Luigi.** Sulla respirazione cutanea e branchiale dei Diplopodi. *Zool. Anz., Leipzig*, **27**, 1903, (150-156).

## 3415 DEVELOPMENT.

## OÖGENESIS AND OÖVUM.

**Lécaillon, A.** Sur le développement de l'ovaire de *Polyzenus lagurus* de Geer. *Paris, C.-R. Acad. sci.*, **136**, 1903, (1691-1693).

## SPERMATOGENESIS.

**Blackman, Maulshy W.** The spermatogenesis of the Myriapods. II. On the chromatin in the spermatocytes of *Scolopendra heros*. [with bibliography]. *Wood's Holl, Mass., Mar. Biol. Lab. Bull.*, **5**, 1903, (187-217, with text fig.).

## 3419 ETHOLOGY.

## GENERAL.

**Morse, Max.** Unusual abundance of a Myriapod, *Parajulus pennsylvanicus* (Brandt). *Science, New York, N.Y.*, (N. Ser.), **18**, 1903, (59-60).

**Muralovič, V. S.** Zur Biologie der *Cermatia (Scutigera) coleoptrata* Newp. (Russ.) *Moskva, Trd. kruž. izsl. russ. prir.*, **1**, 1903, (101-106).

## HABITS.

**Faas, Henri.** Myriopodes du Valais (Vallée du Rhône et vallées latérales). *Rev. Suisse Zool., Genève*, **10**, 1902, (31-164, av. 3 pl.).

**Marlatt, Charles L[ester].** The house centipede (*Scutigera forceps* Raf.) [Reprint from Washington, D.C., *Bull. U. S. Dept. Agric. Div. Ent.*, (N. Ser.), No. **4**, (47-50)]; Washington, D.C., *Cir. U. S. Dept. Agric. Div. Ent.*, (Ser. 2), No. **48**, 1902, (4). 23.4 cm.

## LUMINOSITY.

**Brockhausen, H.** Ueber leuchtende Skolopender. *Münster, Jahresber. Prov.-Ver. Wiss.*, **31**, (1902-03), 1903, (163-164); *Naturfreund, Witten*, **1**, 1902, (45-46).

## HABITAT.

**J[ärvi], T. H.** [Über im Meerwasser lebende Myriopoden]. (Finnisch) *Luonnon Ystävä, Helsingfors*, **1903**, 11-12, (303-304).

## PARASITISM.

**Blanchard, Raphaël.** Nouvelles observations sur le pseudo-parasitisme des myriapodes chez l'homme. *Arch. parasit.*, *Paris*, **6**, 1902, (245-256, av. 2 fig.).

**Léger, L. et Dubosq, O.** Les grégaires et l'épithélium intestinal chez les Trachéates. *L.c.* (377-473, av. fig. et 5 pl.).

## 3423 VARIATION AND ETIOLOGY.

## GENERAL.

**Faas, Henri.** Myriopodes du Valais (Vallée du Rhône et vallées latérales). *Rev. Suisse Zool., Genève*, **10**, 1902, (31-164, av. 3 pl.).

**Pocock, R. I.** Remarks upon the morphology and systematics of certain Chilognathous Diplopods. I. On the terminology and evolution of the gonopods and of the penis. III. Descriptions of new forms. *Ann. Mag. Nat. Hist., London*, (Ser. 7), **12**, 1903, (515-552, figs. I-III in text).

**Williams, Stephen R.** Variation in *Lithobius forficatus*. [With bibliography]. *Amer. Nat., Boston, Mass.*, **37**, 1903, (299-312); [abstract], *London, J. R. Microsc. Soc.*, **1903**, (608).

## 3427 GEOGRAPHICAL DISTRIBUTION.

d EUROPE.

da SCANDINAVIA.

**Ellingsen, Edv.** . . . Norwegian myriopods. (Norw.) *Kristiania, Forh. Vid. selsk.*, **1903**, No. 6, (11).

## db RUSSIA IN EUROPE.

**Lignau, N.** Die Myriopoden der Pontusküsten des Caucasus. (Russ.) Odessa, Ann. Soc. Nat., **25**, Liefg. 1, 1903, (82-125), deutsches Rés., (126-148, Taf. I-II).

## df FRANCE.

**Chalande, Jules.** Contribution à la faune des Myriapodes de France. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (221).

## dh ITALY.

**Verhoeff, Karl W.** Ueber Diplopoden. 1. Aufsatz: Formen aus Tirol, Italien und Cypern. 2. Aufs.: Griechische Tausendfüssler. Arch. Natg., Berlin, **68**, Bd 1, 1902, (175-198, mit 1 Taf.); **69**, Bd 1, 1903, (135-154, mit 2 Taf.).

## di SWITZERLAND.

**Faas, H[enri].** Myriopodes du Valais. Lausanne, Bul. Soc. Sci. Nat., **38**, 1902, (XXXV-XXXVI); Arch. Sci. Phys., Genève, (sér. 4), **14**, 1902, (73-74).

——— La faune myriopodique du Valais. Aarau, Verh. Schweiz. Natf. Ges., **85**, 1902, (80-81); Arch. Sci. Phys., Genève, (sér. 4), **14**, 1902, (554-556).

——— Myriopodes du Valais (Vallée du Rhône et vallées latérales). Rev. Suisse Zool., Genève, **10**, 1902, (31-164, av. 3 pl.).

**Rothenbühler, H.** Zur Myriopodenfauna der Schweiz. II. Beitrag: Myriopoden des bündnerischen Rheingebietes. L.c. (549-561).

## dk AUSTRIA-HUNGARY.

**Verhoeff, Karl W.** Ueber Diplopoden. 1. Aufsatz: Formen aus Tirol, Italien und Cypern. 2. Aufs.: Griechische Tausendfüssler. Arch. Natg., Berlin, **68**, Bd 1, 1902, (175-198, mit 1 Taf.); **69**, Bd 1, 1903, (135-154, mit 2 Taf.).

——— Chilopoden von Südsteiermark, Krain und Kroatien. Berlin, Sitzber. Ges. natf. Freunde, **1902**, (90-93).

(N 2-9053)

## dl BALKAN PENINSULA.

**Verhoeff, Karl W.** Ueber Diplopoden. 1. Aufsatz: Formen aus Tirol, Italien und Cypern. 2. Aufs.: Griechische Tausendfüssler. Arch. Natg., Berlin, **68**, Bd 1, 1902, (175-198, mit 1 Taf.); **69**, Bd 1, 1903, (135-154, mit 2 Taf.).

## e ASIA.

**Carl, Joh.** Exotische Polydesmiden. Rev. Suisse Zool., Genève, **10**, 1902, (563-679).

## ej MALAY PENINSULA.

**Carl, Joh.** Exotische Polydesmiden. Rev. Suisse Zool., Genève, **10**, 1902, (563-679).

## f AFRICA.

## ff EAST AFRICA.

**Pocock, R. I.** Myriopoda. In Nat. Hist. Sokotra. Special. Bull. Liverpool Mus.

## g NORTH AMERICA.

**Carl, Joh.** Exotische Polydesmiden. Rev. Suisse Zool., Genève, **10**, 1902, (563-679).

## gi WESTERN UNITED STATES.

**Chamberlin, Ralph V.** Myriopods from Beulah, New Mexico. Philadelphia, Pa., Proc. Acad. Nat. Sci., **55**, 1903, (35-40).

——— New *Lithobii* from California and Oregon. L.c. (152-160).

——— *Ilenicops dolichopus*, a new Chilopod from Utah. Smithsonian Inst., Nation. Mus. Proc., **24**, 1902, (797-800).

## h CENTRAL AND SOUTH AMERICA.

**Carl, J[oh.].** Revision amerikanischer Polydesmiden. Rev. Suisse Zool., Genève, **11**, 1903, (543-562, av. 2 pls.).

## hb CENTRAL AMERICA.

**Pocock, R. I.** Class Diplopoda. Biol. Centr. Amer., London, **1903**, (41-56, pls. IV, V, 3 figs. in text).

**hh BRAZIL.**

**Brülemann**, Henry W. Myriapodes recueillis par M. E. Goumelle au Brésil. Paris, Ann. soc. ent., **71**, (2<sup>e</sup> semest.), 1902, [1903], (649-694, av. fig. et pl.).

——— Myriapodes recueillis au Pará par monsieur le prof. E. A. Goeldi, directeur du musée. Zool. Anz., Leipzig, **26**, 1903, (177-191).

**i AUSTRALASIA.****if VICTORIA.**

**Carl**, Joh. Exotische Polydesmiden. Rev. Suisse Zool., Genève, **10**, 1902, (563-679).

**ik NEW ZEALAND.**

**Carl**, Joh. Exotische Polydesmiden. Rev. Suisse Zool., Genève, **10**, 1902, (563-679).

**k ARCTIC.**

**Attems**, Carl Graf. Myriopoden. (Fauna Arctica, **3**.) Jena, 1903, (33-54).

**m INDIAN OCEAN.****mb OCEAN AND ISLANDS S. OF EQUATOR.**

**Brülemann**, Henry W. Myriapodes recueillis à l'île de Cocos, par M. le professeur P. Biolley. Paris, Ann. soc. ent., **72**, 1903, (128-143, av. fig.).

**3431 TAXONOMY AND SYSTEMATIC.****GENERAL.**

**Attems**, C. Graf. Beiträge zur Myriopodenkunde. Zool. Jahrb., Jena, Abt. f. Syst., **18**, 1903, (63-154, mit 7 Taf.).

——— Myriopoden. (Fauna Arctica, **3**.) Jena, 1903, (33-54).

**Brülemann**, H. W. Myriapodes recueillis par M. E. Goumelle au Brésil. Paris, Ann. Soc. ent., **71**, (2<sup>e</sup> semest.), 1902, [1903], (649-694, av. fig. et pl.).

——— Myriapodes recueillis à l'île de Cocos, par M. le professeur P.

Biolley. Lc. **72**, 1903, (128-143, av. fig.).

**Chalande**, J. Contribution à la faune des Myriapodes de France. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (221).

**Chamberlin**, R. V. Myriopods from Beulah, New Mexico. Philadelphia, Pa., Proc. Acad. Nat. Sci., **55**, 1903, (35-40).

**Lignau**, N. Myriopoden der Pontusküsten des Caucasus. (Russ.) Odessa, Ann. Soc. Nat., **25**, Liefg 4, 1903, (82-125), deutsches Rés. (126-128, Taf. 1-II).

**Pocock**, R. I. Myriopoda. Nat. Hist. Sokotra, 1903, (427-439, pl. XXVI, fig. 5, 2 figs. in text).

**Rossi**, G. . . . Myriopoda: . . . organizzazione. Roma, Ric. Lab. anat. norm., **9**, fasc. 1<sup>o</sup>, 1902, (5-88, con tav. e fig.).

**Sainte-Claire Deville**, J. Exploration entomologiques des grottes des Alpes-Maritimes. Ann. soc. ent., Paris, **71**, 1902, [1903], (695-709, av. fig.).

**CHILOPODA.****GENERAL.**

**Attems**, C. Synopsis der Geophiliden. Zool. Jahrb., Jena, Abt. f. Syst., **18**, 1903, (155-302, mit 5 Taf.).

**Verhoeff**, K. W. Chilopoden von Südsteiermark, Krain und Kroatien. Berlin, SitzBer. Ges. natf. Freunde, **1902**, (90-93).

**SPECIAL.**

*Cermatia* (*Scutigera*) *coleoprata* Newp., biologie. **Muralevič**, V. S. Moskva, Trd. kruž. izsl. russ. prir., **1**, 1903, (101-106).

*Chaetechele circula* n. sp. **Attems**, C. Zool. Jahrb., Jena, Abt. f. Syst., **18**, 1903, (280).

*Cryptops* nn. spp. **Attems**, C. Lc. (106-109).

——— *megaloporus* Haase var. *javanica* n. var. **Attems**, C. Lc. (63).

——— *socotrensis* n. sp. **Pocock**, R. I. Nat. Hist. Sokotra, **1903**, (433).

*Diplochora* n. gen., *D. fusata* n. sp. **Attems**, C. Zool. Jahrb., Jena, Abt. f. Syst., **18**, 1903, (281).

*Geophilus*, parasite of. **Crawley**, H. Philadelphia, Pa., Proc. Acad. Nat. Sci., 1903, (337-338).

— nn. spp. **Attems**, C. Zool. Jahrb., Jena, Abt. f. Syst., 18, 1903, (228-257).

— *atopodon* n. sp. New Mexico. **Chamberlin**, R. V. Philadelphia, Pa., Proc. Acad. Nat. Sci., 55, 1903, (37).

*Henia*, nn. spp. **Attems**, C. Zool. Jahrb., Jena, Abt. f. Syst., 18, 1903, (277-278).

*Henicops* [spp.] **Chamberlin**, R. V. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (335).

— *dolichopus* n. sp. Utah. **Chamberlin**, R. V. Washington, D.C., Smithsonian Inst., Nation. Mus. Proc., 24, 1902, (797-800).

*Insigniporus* n. gen., *I. sturanyi* n. sp. **Attems**, C. Zool. Jahrb., Jena, Abt. f. Syst., 18, 1903, (269-270).

*Lithobius* nn. spp., 1 n. subsp. **Attems**, C. l.c. (113-115).

— nn. spp. New Mexico. **Chamberlin**, R. V. Philadelphia, Pa., Proc. Acad. Nat. Sci., 55, 1903, (35-36).

— nn. spp. California and Oregon. **Chamberlin**, R. V. l.c. (152-160).

— nn. spp. Caucasus. **Lignan**, N. Odessa, Ann. Soc. Nat., 25, Liefg 4, 1903, (82-125, deutsches Rés. 126-128 mit Taf I-II).

— *forficatus*, mathematical variation. **Williams**, S. R. Amer. Nat., Boston, Mass., 37, 1903, (299-312).

— *mediterraneus* n. sp. France. **Chalande**, J. Feuille jeunes natural., Paris, (ser. 4), 33, 1903, (221).

*Maoriella* n. gen., *M. macrostigma*, *M. aucklandica* nn. spp. **Attems**, C. Zool. Jahrb., Jena, Abt. f. Syst., 18, 1903, (283-285).

*Orphnaeus bohlei* n. sp. **Attems**, C. l.c. (203).

*Orostigma* nn. spp. **Attems**, C. l.c. (97-99).

*Parostostigmus*, external sexual organs. **Pocock**, R. I. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (621-624, 2 figs. in text).

*Pectiniunjuis* nn. spp. **Attems**, C. Zool. Jahrb., Jena, Abt. f. Syst., 18, 1903, (191-193).

*Schendyla carniolensis* n. sp. Süddeistermark. **Verhoeff**, K. Berlin, Sitz. Ber. Ges. natf. Freunde, 1902, (90-93).

— *gounellei* n. sp. Brésil. **Brölemann**, H. W. Paris, Ann. soc. ent., 71, (2<sup>e</sup> semest.), 1902, [1903], (685).

— *maroccana* n. sp. **Attems**, C. Zool. Jahrb., Jena, Abt. f. Syst., 18, 1903, (189).

*Scolopendra heros*, spermatogenesis. **Blackman**, M. W. Wood's Holl, Mass., Mar. Biol. Lab. Bull., 5, 1903, (187-217, with text fig.).

*Scutigera (Cermatia) forceps*, structure of the eye. **Hemenway**, J. [Reprint from Wood's Holl, Mass., Mar. Biol. Lab. Bull., 1, 1900, No. 4, (205-215), Bryn Mawr, Pa., Bryn Mawr Coll. Monogr., (Repr. Ser.), 1, 1901, (205-213).

— habits. **Marlatt**, C. L. [Reprint from Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent. (N. Ser.), No. 4, (47-50).]; Washington, D.C., Cir. U. S. Dept. Agric. Div. Ent., (Ser. 2), No. 48, 1902, (4).

## DIPLOPODA.

### GENERAL.

**Bruntz**, L. Sur la présence de reins labiaux et d'un organe phagocytaire chez les Diplopodes. Paris, C.-R. Acad. sci., 136, 1903, (57-59).

**Carl**, J. Exotische Polydesmiden. Rev. Suisse Zool., Genève, 10, 1902, (563-679).

— Revision amerikanischer Polydesmiden. l.c. 11, 1903, (543-562, av. 2 pls.).

**Pocock**, R. I. Remarks upon the morphology and systematics of certain Chilognathous Diplopodes. I. On the terminology and evolution of the gonopods and of the penis. II. Descriptions of new forms. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (515-532, figs. i-iii in text).

**Verhoeff**, Karl W. Ueber Diplopoden. 1. Aufsatz: Formen aus Tirol, Italien

und Cypern. 2. Aufs.: Griechische Tausendfüßler. Arch. Natg., Berlin, **68**, Bd 1, 1902, (175-198, mit 1 Taf.); **69**, Bd 1, 1903, (135-154, mit 2 Taf.).

## SPECIAL.

*Aneptoporus* n. gen. Pocock, R. I. Nat. Hist. Sokotra, **1903**, (437-438).

*Aulacobolus* n. gen. Pocock, R. I. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (531).

*Brachydesmus* nn. spp. Attems, C. Zool. Jahrb., Jena, Abt. f. Syst., **18**, 1903, (124-126).

*Brachyiulus* nn. spp. Attems, C. l.c. (133-137).

———— nn. spp. Tyrol. Verhoeff, K. W. Arch. Natg., Berlin, (149-150).

*Cambalopsis tjumpeana* n. sp. Attems, C. Zool. Jahrb., Jena, Abt. f. Syst., **18**, 1903, (68-71).

*Ceratosoma elaphron*: *latifolium* n. subsp. Attems, C. l.c. (128).

*Cleidogona* nn. spp. Mexico and Guatemala. Pocock, R. I. Biol. Centr.-Amer., London, **1903**, (52).

*Cylindroiulus* nn. spp. Attems, C. Zool. Jahrb., Jena, Abt. f. Syst., **18**, 1903, (138-140).

*Dimerogonus* n. gen., *D. orophilus*, *D. insulanus* nn. spp. Attems, C. l.c. (84-88).

*Epinannolene* n. gen., *E. pitieri* n. sp. Cocos. Brölemann, H. W. Paris, Ann. soc. ent., **72**, 1903, (135-136).

*Eucentrobolus* n. gen., *E. tamulus* n. sp. S. India. Pocock, R. I. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (528-531).

*Eurhinocricus* n. subgen. (*Rhinocricus*) Cocos. Brölemann, H. W. Paris, Ann. soc. ent., **72**, 1903, (131).

*Fontariopsis* n. gen., *F. socotrensis* n. sp. Pocock, R. I. Nat. Hist. Sokotra, **1903**, (455-456).

*Glomeris prominens* n. sp. Attems, C. Zool. Jahrb., Jena, Abt. f. Syst., **18**, 1903, (121).

*Haplosomides* n. gen., *H. mölleri* n. sp. Attems, C. l.c. (68).

*Hendersoniula* n. gen., *H. collina* n. sp. Southern India. Pocock, R. I. Ann.

Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (520-522).

*Huttoniella* n. gen. New Zealand. Pocock, R. I. l.c. (518-520).

*Julus* nn spp. Caucasus. Lignau, N. Odessa, Ann. Soc. Nat., **25**, Liefg 4, 1903, (82-125), deutsches Res., (126-128, Taf. I-II).

———— *communis*, apparecchio digerente. Nota preliminare. Rossi, G. Firenze, Boll. Soc. Entom., **34**, 1902, (3-9, con tav.).

———— glandole odorifere. Rossi, G. Zs. wiss. Zool., Leipzig, **74**, 1903, (64-80, mit 1 Taf.).

———— *napolitana* n. sp. Attems, C. Zool. Jahrb., Jena, Abt. f. Syst., **18**, 1903, (140-142).

———— *unilineatus*, faunistisch. Méhely, L. Allatt. Közlem., Budapest, **2**, 1903, (99).

*Leptodesmus* nn. spp. Brésil. Brölemann, H. W. Paris, Ann. soc. ent., **71**, (2<sup>e</sup> semest.), 1902, [1903], (649-694, av. fig. et pl.).

———— *folium* n. sp. Cocos. Brölemann, H. W. l.c. **72**, 1903, (128-143, av. fig.).

*Lysiopetalum* nn. spp. Attems, C. Zool. Jahrb., Jena, Abt. f. Syst., **18**, 1903, (129-131).

———— *pedefissum* n. sp. Tyrol. Verhoeff, K. W. Arch. Natg., Berlin, (147).

*Mongoliulus* n. gen. Pocock, R. I. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (522-528).

*Nannolene nigrescens* n. sp. Attems, C. Zool. Jahrb., Jena, Abt. f. Syst., **18**, 1903, (90-91).

*Orobainosoma cyanopidum* n. sp. Attems, C. l.c. (127).

*Pachyiulus continentalis* n. sp., *P. insularis*: *penicillata* n. subsp. Attems, C. l.c. (146-148).

*Paraiulus* nn. spp. Mexico. Pocock, R. I. Biol. Centr.-Amer., London, **1903**, (55-56).

———— *neomexicanus* n. sp. New Mexico. Chamberlin, R. V. Philadelphia, Pa., Proc. Acad. Nat. Sci., **55**, 1903, (38-40).

*Paraiulus oregonensis* n. sp. **Attems**, C. Zool. Jahrb., Jena, Abt. f. Syst., **18**, 1903, (91).

——— *pennsylvanicus*, migration. **Morse**, M. Science, New York, N.Y., (N. Ser.), **18**, 1903, (59-60).

*Platydesmus* nn. spp. Guatemala. **Pocock**, R. I. Biol. Centr.-Amer., London, **1903**, (45-47).

*Polybimobolus* n. gen. **Pocock**, R. I. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (531).

*Polydesmus klisurenensis* n. sp. Tyrol. **Verhoeff**, K. W. Arch. Natg., Berlin, (150).

——— *montenegrinus* n. sp. **Attems**, C. Zool. Jahrb., Jena, Abt. f. Syst., **18**, 1903, (124).

——— *ponticus* n. sp. Caucasus. **Lignau**, N. Odessa, Ann. Soc. Nat., **25**, Liefg. 4, 1903, (82-125, deutsches Res. 126-127, mit Taf. I-II).

*Polyxenus lagurus* de Geer, développement de l'ovaire. **Lécaillon**, A. Paris, C.-R. Acad. sci., **136**, 1903, (1691-1693).

*Rhinocricus* nn. spp. Pará. **Brölemann**, H. W. Zool. Anz., Leipzig, **26**, 1903, (187-189).

——— (*Eurhinocricus*) *biolleyi* n. sp. Cocos. **Brölemann**, H. W. Paris, Ann. soc. ent., **72**, 1903, (132).

——— *transversalis* n. sp. Brésil. **Brölemann**, H. W. L.c. **71**, (2<sup>e</sup> semest.), 1902, [1903], (682).

*Schizophyllum* nn. spp. **Attems**, C. Zool. Jahrb., Jena, Abt. f. Syst., **18**, 1903, (144-146).

*Siphonophora* nn. spp. Guatemala. **Pocock**, R. I. Biol. Centr.-Amer., London, **1903**, (50-51).

*Siphonopus brevicornis* n. sp. Victoria. **Pocock**, R. I. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (531).

*Spirobolellus cruentatus* n. sp. Pará. **Brölemann**, H. W. Zool. Anz., Leipzig, **26**, 1903, (177-191).

*Spirobolus bulbiferus* n. sp. **Attems**, C. Zool. Jahrb., Jena, Abt. f. Syst., **18**, 1903, (71-72).

*Spiros'reptus* nn. spp. **Attems**, C. L.c. (73-79, mit 7 Taf.).

——— nn. spp. Brésil. **Brölemann**, H. W. Paris, Ann. soc. ent., **71**, (2<sup>e</sup> semest.), 1902, [1903], (678-680).

*Spiros'reptus collectivus* n. sp. **Attems**, C. Zool. Jahrb. Jena, Abt. f. Syst., **18**, 1903, (88-90).

——— (*Scaphiostreptus* ?) *pseudofuscipes* n. sp. Pará. **Brölemann**, H. W. Zool. Anz., Leipzig, **26**, 1903, (178).

*Strongylosomus* nn. spp. **Attems**, C. Zool. Jahrb., Jena, Abt. f. Syst., **18**, 1903, (66-67).

——— *cyprium* n. sp. Cyprus. **Verhoeff**, K. W. Arch. Natg., Berlin, **68**, 1902, (197).

——— *pustulatum* n. sp. Brésil. **Brölemann**, H. W. Paris, Ann. soc. ent., **71**, (2<sup>e</sup> semest.), 1902, [1903], (690).

——— *tropiferum* n. sp. *S. pallipes* n. subsp. et nn. varr. *S. italicum* var. *punica* n. var. **Attems**, C. Zool. Jahrb., Jena, Abt. f. Syst., **18**, 1903, (123).

*Trimerophorella* n. gen., *T. niticomex* n. sp. Tyrol. **Verhoeff**, K. W. Arch. Natg., Berlin, **68**, 1902, (175-176).

## SYMPHYLA.

## GENERAL.

**Hansen**, H. J. The genera and species of the order Symphyla. Q. J. Microsc. Sci., London, (N. Ser.), **47**, 1903, (1-101, pls. I-VII).

## SPECIAL.

*Scolopendrella* nn. spp. **Hansen**, H. J. Q. J. Microsc. Sci., London, (N. Ser.), **47**, 1903, (70-89).

*Scutigerebella* nn. spp. **Hansen**, H. J. L.c. (33-58, pls. I-VII).

## LIST OF NEW GENERA AND SPECIES.

**Aneptoporus** n. gen. [Diplopoda]. **Pocock**. 36.

**Aulacobolus** n. gen. [Diplopoda]. **Pocock**. 34.

**BRACHYDESMUS** [Diplopoda].

——— *cornuatus*. **Attems**. 1.

——— *spincus*. **Attems**. 1.

——— *uncinatus*. **Attems**. 1.

**BRACHYIULUS** [Diplopoda].

- *kliurensis*. Verhoeff. 45.
- *latesquamosus*. Attems. 1.
- *recticauda*. Attems. 1.
- *syrensis*. Verhoeff. 45.
- *taygelanus*. Attems. 1.
- *vicinus*. Verhoeff. 45.

**CAMBALOPSIS** [Diplopoda].

- *tjampeana*. Attems. 1.

**CERATOSOMA** [Diplopoda].

- *elaphron*: *latifolium* n.
- subsp. Attems. 1.

**CHAETECHELYNE** [Chilopoda].

- *circula*. Attems. 2.

**CLEIDOGONA** [Diplopoda].

- *godmani*. Pocock. 35.
- *stolli*. Pocock. 35.

**CRYPTOPS** [Chilopoda].

- *abbreriatu*. Attems. 1.
- *megaloporus* var. *javanica* n. var. Attems. 1.
- *polyodonotus*. Attems. 1.
- *socotrensis*. Pocock. 36.
- *triserratus*. Attems. 1.
- *unguiculatus*. Attems. 1.

**CYLINDROCIUS** [Diplopoda].

- *deubeli*. Attems. 1.
- *hyperopherus*. Attems. 1.

**Dimerogonus** n. gen. [Diplopoda].

- Attems. 1.
- *insulanus*. Attems. 1.
- *orphilus*. Attems. 1.

**Diplochora** n. gen. [Chilopoda]. Attems. 2.

- *fusata*. Attems. 2.

**Epinannolene** n. gen. [Diplopoda].

- Brölemann. 8.
- *pittieri*. Brölemann. 8.

**Eucentrobolus** n. gen. [Diplopoda].

- Pocock. 34.
- *tamulus*. Pocock. 34.

**Eurhinocricus** n. subg. [Diplopoda].

- Brölemann. 8.

**Fontariopsis** n. gen. [Diplopoda].

- Pocock. 36.
- *socotrensis*. Pocock. 36.

**GEOPHILUS** [Chilopoda].

- *atopodon*. Chamberlin. 16.
- *caucasicus*. Attems. 2.
- *corralinus*. Attems. 2.
- *kobelli*. Attems. 2.
- *laticollis*. Attems. 2.
- *metopias*. Attems. 2.
- *michaelseni*. Attems. 2.
- *moderatus*. Attems. 2.
- *ormanyensis*. Attems. 2.

**GEOPHILUS** [Chilopoda].

- *palpiger*. Attems. 2.
- *schaumlandi*. Attems. 2.
- *sitocola*. Attems. 2.
- *sorrentinus*. Attems. 2.
- *syriacus*. Attems. 2.
- *xylophagus*. Attems. 2.

**GLOMERIS** [Diplopoda].

- *prominens*. Attems. 1.

**Haplosomides** n. gen. [Diplopoda].

- Attems. 1.
- *möllerii*. Attems. 1.

**Hendersonula** n. gen. [Diplopoda].

- Pocock. 34.
- *collina*. Pocock. 34.

**HENIA** [Chilopoda].

- *biconica*. Attems. 2.
- *crinita*. Attems. 2.

**HENICOPS** [Chilopoda].

- *dolichopus*. Chamberlin. 15. §

**Huttoniella** n. gen. [Diplopoda]. Pocock. 34.**Insigniporus** n. gen. [Chilopoda].

- Attems. 2.
- *sturanyi*. Attems. 2.

**JULUS** [Diplopoda].

- *bellus*. Lignau. 28.
- *curtocaudatus*. Lignau. 28.
- *litoreus*. Lignau. 28.
- *napolitanius*. Attems. 1.
- *placidus*. Lignau. 28.
- *ruber*. Lignau. 28.

**LEPTODESMUS** [Diplopoda].

- *bahiensis*. Brölemann. 7.
- *carminatus*. Brölemann. 7.
- *clavaria*. Brölemann. 7.
- *corcoradis*. Brölemann. 7.
- *deserticola*. Brölemann. 7.
- *expansus*. Brölemann. 7.
- *folium*. Brölemann. 8.
- *gibbula*. Brölemann. 7.
- *gibbus*. Brölemann. 7.
- *gounellei*. Brölemann. 7.
- *latirentis*. Brölemann. 7.
- *simillimus*. Brölemann. 7.

**LITHOBIUS** [Chilopoda].

- *angelus*. Chamberlin. 17.
- *bellulus*. Chamberlin. 17.
- *beulae*. Chamberlin. 16.
- *castellopes*. Chamberlin. 17.
- *chumasanus*. Chamberlin. 17.
- *clavigerens*. Chamberlin. 17.
- *dolomiticus*. Attems. 1.
- *glyptocephalus*. Chamberlin. 16.

§ Also described in N, 2, i, No. 6951.

**LETHROBIUS** [Chilopoda].

- *intrepidus*: *sicula* n. subsp.  
Attems. 1.  
— *latus*. Attems. 1.  
— *liber*. Lignau. 28.  
— *mediterraneus*. Chalande.  
14.  
— *mesechinus*. Chamberlin. 17.  
— *pantokratoris*. Attems. 1.  
— *pitophilus*. Chamberlin. 17.  
— *podokes*. Attems. 1.  
— *remex*. Chamberlin. 17.  
— *sastianus*. Chamberlin. 17.  
— *sierravagus*. Chamberlin.  
17.  
— *vehemens*. Lignau. 28.

**LYSIOPETALUM** [Diplopoda].

- *camallulense*. Attems. 1.  
— *hamatum*. Attems. 1.  
— *isotropum*. Attems. 1.  
— *pedefissum*. Verhoeff. 45.

**MAORIELLA** n. gen. [Chilopoda]. Attems. 2.

- *aucklandica*. Attems. 2.  
— *macrostigma*. Attems. 2.

**MONGOLIULUS** n. gen. [Diplopoda]. Pocock. 34.

- NANNOLENE** [Diplopoda].  
— *nigrescens*. Attems. 1.

**OROBAINOSOMA** [Diplopoda].

- *cyanopidum*. Attems. 1.

**ORPHNAEUS** [Chilopoda].

- *bohlsi*. Attems. 2.

**OTOSTIGMA** [Chilopoda].

- *bürgeri*. Attems. 1.  
— *michaelsenii*. Attems. 1.  
— *platei*. Attems. 1.

**PACHYIULUS** [Diplopoda].

- *continentalis*. Attems. 1.  
— *insularis*: *penicillata* n.  
subsp. Attems. 1.

**PARAIULUS** [Diplopoda].

- *amulensis*. Pocock. 35.  
— *aztecus*. Pocock. 35.  
— *neomexicanus*. Chamberlin.  
16.  
— *oregonensis*. Attems. 1.

**PECTINIUNGUIS** [Chilopoda].

- *europaeus*. Attems. 2.  
— *plusiodontus*. Attems. 2.

**PLATYDESMUS** [Diplopoda].

- *analis*. Pocock. 35.  
— *hirudo*. Pocock. 35.  
— *lineatus*. Pocock. 35.

**PLATYDESMUS** [Diplopoda].

- *marmoreus*. Pocock. 35.  
— *mesomelas*. Pocock. 35.  
— *perpictus*. Pocock. 35.  
— *triangulifer*. Pocock. 35.

**Polybunobolus** n. gen. [Diplopoda]. Pocock. 34.**POLYDESMUS** [Diplopoda].

- *klisurenensis*. Verhoeff. 45.  
— *montenegrinus*. Attems. 1.  
— *ponticus*. Lignau. 28.

**RHINOCRICUS** [Diplopoda].

- *biolleyi*. Brölemann. 8.  
— *goeldii*. Brölemann. 9.  
— *insulus*. Brölemann. 9.  
— *transversalis*. Brölemann. 7.

**SCHENDYLA** [Chilopoda].

- *carniolensis*. Verhoeff. 44.  
— *gounellei*. Brölemann. 7.  
— *maroccana*. Attems. 2.

**SCHIZOPHYLLUM** [Diplopoda].

- *diplurum*. Attems. 1.  
— *tetuanum*. Attems. 1.

**SCOLOPENDRELLA** [Symphyla].

- *antennata*. Hansen. 23.  
— *brevipes*. Hansen. 23.  
— *neotropica*. Hansen. 23.  
— *pusilla*. Hansen. 23.  
— *silvestrii*. Hansen. 23.  
— *simplex*. Hansen. 23.  
— *subnuda*. Hansen. 23.  
— *texana*. Hansen. 23.  
— *vulgaris*. Hansen. 23.

**SCUTIGERELLA** [Symphyla].

- *angulosa*. Hansen. 23.  
— *armata*. Hansen. 23.  
— *caldaria*. Hansen. 23.  
— *capensis*. Hansen. 23.  
— *chilensis*. Hansen. 23.  
— *crassicornis*. Hansen. 23.  
— *orientalis*. Hansen. 23.  
— *pauperata*. Hansen. 23.  
— *plebeia*. Hansen. 23.  
— *unguiculata*. Hansen. 23.

**SIPHONOPHORA** [Diplopoda].

- *brevicornis*. Pocock. 35.  
— *cornuta*. Pocock. 35.  
— *globiceps*. Pocock. 35.

**SIPHONOTUS** [Diplopoda].

- *brevicornis*. Pocock. 34.

**SPIROBOLELLUS** [Diplopoda].

- *cruentatus*. Brölemann. 9.

**SPIROBOLUS** [Diplopoda].

- *bulbiferus*. Attems. 1.



**SPIROSTREPTUS** [Diplopoda].

- *boyoricus*. Attems. 1.
- *coalitus*. Attems. 1.
- *collectivus*. Attems. 1.
- *coniferus*. Attems. 1.
- *deserticola*. Brölemann. 7.
- *gounellei*. Brölemann. 7.
- *immanis*. Attems. 1.
- *möllerii*. Attems. 1.
- *pseudo-fuscipes*. Bröle-  
mann. 9.
- *tjisaroanus*. Attems. 1.

**STRONGYLOSOMA** [Diplopoda].

- *cyprium*. Verhoeff. 45.
- *italicum* var. *punica* n. var.  
Attems. 1.

**STRONGYLOSOMA** [Diplopoda].

- *jacanicum*. Attems. 1.
- *pallipes: werneri* n. subsp.  
Attems. 1.
- *werneri* var. *mag-*  
*nesiaca* n. var. Attems. 1.
- *werneri* var. *tenuis*  
n. var. Attems. 1.
- *pustulatum*. Brölemann. 7.
- *trichonotum*. Attems. 1.
- *tropiferum*. Attems. 1.

**Trimerophorella** n. gen. [Diplopoda].  
Verhoeff. 45.

- *nivicomes*. Verhoeff. 45.

3603-3631.

**APTERA (or APTERY-  
GOGENEA).  
ANOPLURA.  
MALLOPHAGA.**

**THYSANOPTERA (or  
PHYSOPODA).  
SIPHONAPTERA (or  
APHANIPTERA).**

## TITLES.

**Ågren, Hugo.** Zur Kenntniss der Apterygoten - Fauna Süd - Schwedens. Stettiner ent. Ztg., **64**, 1903, (113-176, mit 1 Taf.). [3627 *da* 3631]. 1

**Axelsson, Walter M.** Beiträge zur Kenntniss der Collembolen-Fauna Sibiriens. Helsingfors, Öfvers. F. Vet. Soc., **45**, [No. 20], 1902-1903, (1-13, mit 1 Taf.). [3631 3627 *ea*]. 2

**Banks, Nathan.** New *Sminthuridae* from the District of Columbia. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (154-155). [3627 *gh* 3631]. 3

**Bekker, E. E.** Beiträge zur Kenntnis der vergleichenden Anatomie der Kopfdrüsen bei den Collembolen. (Russ.) Moskva, Dnev. Zool. Otd. Imp. Obsč. inb. jest., **III**, 5, 1903, (1-19, mit 1 Taf.). 35 cm. [3607 3631]. 4

**Börner, Carl.** Neue altweltliche Collembolen, nebst Bemerkungen zur Systematik der Isotominen und Entomobryinen. Berlin, SitzBer. Ges. natf. Freunde, **1903**, (129-182, mit 1 Taf.). [3631]. 5

**Carl, J[oh].** Sur un organe embryonnaire chez un collembole. Arch. Sci. Phys., Genève, (sér. 4), **16**, 1903, (601-604). [3607 3631]. 6

**Carriker, M. A., jun.** Mallophaga from birds of Costa Rica, Central America. Lincoln, Nebr., Univ. Stud., **3**, 1903, (123-197, with pl.). [3627 *hb* 3631 5803 5827 *hb* 5831]. 7

**Cary, L. R.** The grass thrips (*Anaphothrips striata*). Agric. Exp. Sta., Maine, Orono, Bull. No. **83**, 1902, (95-128, with 7 pls.); [review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta., Rec., **14**, 1902, (373). [3603 3631]. 8

**Cholodkovsky, N[ikolaj].** Zur Morphologie der Pediculiden. Zool. Anz., Leipzig, **27**, 1903, (120-125). [3607 3631]. 9

**Davenport, C[harles] B[enedict].** The Collembola of Cold Spring Beach [Long Island], with special reference to the movements of the *Poduridae*. Brooklyn, N.Y., Inst. Arts. Sci. Cold Spring Harbor Monog., No. **2**, 1903, (32, with pl.). 25 cm. [3619 3631]. 10

**Enderlein, Günther.** Die Landarthropoden der von der Tiefsee-Expedition besuchten antarktischen Inseln. I. Die Insekten und Arachnoideen der Kerguelen. II. Die Landarthropoden der antarktischen Inseln St. Paul und Neu-Amsterdam. (Wissenschaftliche Ergebnisse der deutschen Tiefsee-Expedition, Bd 3, Lfg 7). Jena, 1903, (197-270, mit 10 Taf.). 35 cm. [2427 *oc mb* 2431 3631 4231 4431]. 11

**Escherich, K[arl].** Beiträge zur Kenntnis der Thysanuren. Reihe I. Zool. Anz., Leipzig, **28**, 1903, (345-366). [3619 3631 4619]. 12

**Galli-Valerio, B.** The part played by the fleas of rats and mice in the transmission of bubonic plagues. J. trop. Med., London, **5**, 1903, (33-35). [0060 3619]. 13

- Guthrie, Joseph E.** The Collembola of Minnesota. (Geological and natural history survey of Minnesota. Zoological series IV. Edited by Henry F. Nachtrieb). Minneapolis, 1903, (VI-110, with pl.). 23.8 cm. [3627 gi 3631]. 14
- Kellogg, Vernon L[ym]an.** Two new genera of Mallophaga [*Philoceanus* n. gen. (from *Procellaria tethys*) and *Nesiotinus* n. gen. (from *Aptenodytes longirostris*)]. Wood's Holl, Mass., Mar. Biol. Lab. Bull., 5, 1903, (85-91, with text-fig.). [3631]. 15
- Kohaut, R.** Ueber die Flöhe Ungarns. (Ungarisch) Allatt Közlem., Budapest, 2, 1903 (25-46, 53-68, mit 7 Taf.) [3627 dk 3631]. 15
- Lécaillon, A.** Sur la disposition, la structure et le fonctionnement de l'appareil reproducteur mâle des collemboles. Paris, Bul. soc. philom., (sér. 9), 4, 1902, (99-103). [3607 3611 3631]. 16
- Leonardi, Gustavo.** Danni causati dalla *Heliothrips haemorrhoidalis* agli agrumi. Bollettino di Entomologia agraria, Padova, 9, 1902, (241-244). [3603 3631]. 17
- Ludwig, Fr.** Ein neues *Thysanoptero-cedidum*, verursacht durch *Phloeothrips tepperi* Uzel n. sp. Gera, Jahresber. Ges. Natw., 43-45, (1900-1902), 1903, (85). [3631 3603]. 18
- Morse, Max.** Synopsis of North American invertebrates. 19. The *Trichodectidae*. Amer. Nat., Boston, Mass., 37, 1903, (609-624). [0227 g 3627 g 3631]. 19
- Neumann, L. G.** Deux nouvelles Pédiculines. [*Haematopinus praecisus* non *praecitus*]. (Note rectificative). Arch. parasit., Paris, 6, 1902, (144, av. fig.). [3631]. 20
- Nuttall, G. H. F.** Note on the supposed transmission of plague by fleas and of relapsing fever by bed-bugs. J. trop. Med., London, 5, 1903, (65). [0060 3603 3631]. 21
- Rainbow, W. J.** Notes on fleas parasitic on the tiger cat. Sydney, N.S.W., Rec. Austr. Mus., 5, 1903, (53-55). [3631]. 22
- Ribaga, Constantino.** I principali insetti dell'ordine dei Fisapodi dannosi alle piante coltivate. Bollettino di Entomologia agraria, Padova, 9, 1902, (169-177, 193-205, 227-235). [3603 3631]. 23
- Rothschild, N. C.** New species of Siphonaptera from Egypt and the Soudan. Ent. Mag., London, 39, 1903, (83-87, pls. I, II). [3627 fb 3631]. 24
- Types of Siphonaptera in the Daleian collection. Ent. Mag., London, 39, 1903, (144-146). [3631]. 25
- A new British flea: *Ceratophyllus dalei* n. sp. Entomologist, London, 36, 1903, (297, pl. V). [3627 de 3631]. 26
- A collection of fleas received from Baron Carlo von Erlanger and Mr. Oscar Neumann. Nov. Zool., Tring, 10, 1903, (312-315). [3631]. 27
- Further contributions to the knowledge of the Siphonaptera. Nov. Zool., Tring, 10, 1903, (317-325, pls. IX, X). [3631]. 28
- A new British flea: *Ceratophyllus londiniensis*. Ent. Rec., London, 15, 1903, (64, 65). [3627 de 3631]. 29
- A new British flea: *Typhloceras poppei* Wagner. Ent. Rec., London, 15, 1903, (196, pl. IX). [3627 de 3631]. 30
- Ceratophyllus fringillae*, Walker. Ent. Rec., London, 15, 1903, (308-309, pl. XV). [3631]. 31
- Sainte-Claire Deville, J.** Exploration entomologique des grottes des Alpes-Maritimes. Ann. Soc. ent., Paris, 71, 1902, [1903], (695-709, av. fig.). [2427 df 2431 2631 3031 3431 3631 3831 4831]. 32
- Seaton, Frances.** The compound eyes of *Machilis*. Amer. Nat., Boston, Mass., 37, 1903, (319-329, with pl.). [3607 3631]. 33
- Swenk, Myron H.** A synopsis of the North American species of *Japyx*. [United States and Mexico.] New York, N.Y., J. Ent. Soc., 11, 1903, (129-132). [3627 gf ha 3631]. 34
- Tiraboschi, Carlo.** Beitrag zur Kenntnis der Pestepidemiologie. Ratten, Mäuse und ihre Ektoparasiten. Vorläufige Mitteilung. Arch. Hyg., München, 46, 1903, (251-263). [3603 3631 6031]. 35
- Ulrich, Carl Jost.** A contribution to the subterranean fauna of Texas. [Arthropoda, with nn. spp. in Crustacea Arachnida and Aptera.] Contributions from the Zoological Laboratory of the

Indian University No. 34 in Lincoln Nebr., Trans. Amer. Microsc. Soc., 23, 1901, [1902], (83-100, with pl.). [0219 2427 gi 2631 3031 3631]. 33

**Verhoeff, Karl W.** Ueber die Endsegmente des Körpers der Chilopoden, Dermapteren und Japygiden und zur Systematik von Japyz. Halle, Nova Acta Leop., 81, 1903, (257-298, mit 2 Taf.). [2407 3631]. 37

**Voigts, Hans.** Beitrag zur Collembolenfauna von Bremen. Bremen, Abh. natw. Ver., 17, 1903, (283-289). [3627 de 3631]. 38

**Wagner, Jul.** Notice on insects with a double receptaculum seminis. Zool. Anz., Leipzig, 27, 1903, (148-150). [3607]. 39

——— La chasse des Aphaniptères. (Russ.) Rev. Russ. Ent., Jaroslavl, 3, 1903, (68-69). [3603]. 40

——— Notice sur le genre *Vermipseylla* et sur la fam. des *Vermipseyllidae* Wagn. (Russ.) Rev. Russ. Ent., Jaroslavl, 3, 1903, (291-296). [3631]. 41

——— Notice sur les espèces voisines de *Pulex pallidus* Tasch. (Russ.) Rev. Russ. Ent., Jaroslavl, 3, 1903, (308-310). [3631]. 42

——— Aphanipterologische Studien V. Ueber den gegenseitigen Bezug der Gruppen Aphaniptera und der Säugetiere und über die Einteilung der Gattung *Typhlopsylla* Tasch. St. Petersburg, Hor. Soc. Ent. Ross., 36, 1903, (125-156, Taf. II). [3607 3619 3631 6019]. 43

——— Beiträge zur Kenntniss der Vogelpuliciden. St. Petersburg, Hor. Soc. Ent. Ross., 36, 1903, (278-293, Taf., III, IV). [3631]. 44

**Willem, Victor.** L'influence de la lumière sur la pigmentation de *Isotoma tenebricola*. Bruxelles, Ann. Soc. ent. Belgique, 45, 1901, (193-196). [0223 3611 3631]. 45

——— Les collemboles recueillis par l'expédition antarctique belge. Bruxelles, Ann. Soc. ent. Belgique, 45, 1901, (260-262). [3631]. 46

——— Les rapports d'*Actaetes* avec les autres collemboles. Bruxelles, Ann. Soc. ent. Belgique, 46, 1902, (11-12). [3631]. 47

**Willem, Victor.** La position des Anurophoriens dans la classification des collemboles. Bruxelles, Ann. Soc. ent. Belgique, 46, 1902, (21-23). [3631]. 48

### 3603 COMPREHENSIVE AND GENERAL WORKS.

#### GENERAL.

**Nuttall, G. H. F.** Note on the supposed transmission of plague by fleas and of relapsing fever by bed-bugs. J. trop. Med., London, 5, 1903, (65).

**Wagner, J.** La chasse des Aphaniptères. (Russ.) Rev. Russ. Ent., Jaroslavl, 3, 1903, (68-69).

#### ECONOMICS.

**Cary, L. R.** The grass thrips [*Anaphothrips striata*]. Agric. Exp. Sta., Maine, Orono, Bull. No. 83, 1902, (95-123, with 7 pls.); [review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta., Rec., 14, 1902, (373).

**Leonardi, Gustave.** Danni causati dalla *Heliothrips haemorrhoidalis* agli agrumi. Bollettino di Entomologia agraria, Padova, 9, 1902, (241-244).

**Ludwig, Fr.** Ein neues *Thysanopteroecidium*, verursacht durch *Phloeothrips tepperi* Uzel. n. sp. Gera, Jahresber. Ges. Natw., 43-45, (1900-1902), 1903, (85).

**Elbaga, Constantino.** I principali insetti dell'ordine dei Fisapodi dannosi alle piante coltivate. Bollettino di Entomologia agraria, Padova, 9, 1902, (169-177, 193-205, 227-235).

**Tiraboschi, Carlo.** Beitrag zur Kenntnis der Pestepidemiologie. Ratten, Mäuse und ihre Ektoparasiten. Vorläufige Mitteilung. Arch. Hyg., München, 46, 1903, (251-263).

### 3607 STRUCTURE.

#### GENERAL.

**Ohlodkovsky, N[ikolaj].** Zur Morphologie der Pediculiden. Zool. Anz., Leipzig, 27, 1903, (120-125).

## SENSE ORGANS.

**Seaton, Frances.** The compound eyes of *Machilis*. Amer. Nat., Boston, Mass., **37**, 1903, (319-329, with pl.).

## SPECIAL GLANDS.

**Bekker, Ernest Egorovič.** Beiträge zur Kenntnis der vergleichenden Anatomie der Kopfdrüsen bei den Collembolen. (Russ.) Moskva, Dnev., Zool. Otd. Imp. Obšč. Iiub. jest., **III**, 5, 1903, (1-19, mit 1 Taf.). 35 cm.

## REPRODUCTIVE ORGANS.

**Lécaillon, A.** Sur la disposition, la structure et le fonctionnement de l'appareil reproducteur mâle des collemboles. Paris, Bul. soc. philom., (sér. 9), **4**, 1902, (99-103).

**Wagner, Jul.** Aphanipterologische Studien. V. St. Petersburg, Hor. Soc. Ent. Ross., **36**, 1903, (125-156, Taf. II).

——— Notice on insects with a double receptaculum seminis. Zool. Anz., Leipzig, **27**, 1903, (148-150).

## RUDIMENTARY ORGANS AND ORGANS OF UNCERTAIN NATURE.

**Carl, J[oh.].** Sur un organe embryonnaire chez un collembole. Arch. Sci. Phys., Genève, (sér. 4), **16**, 1903, (601-604).

## 3611 PHYSIOLOGY.

## GENERATIVE ORGANS.

**Lécaillon, A.** Sur la disposition, la structure et le fonctionnement de l'appareil reproducteur mâle des collemboles. Paris, Bul. soc. philom., (sér. 9), **4**, 1902, (99-103):

## ENVIRONMENTAL EFFECTS.

**Willem, Victor.** L'influence de la lumière sur la pigmentation de *Isotoma tenebricola*. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (193-196).

## 3619 ETHOLOGY.

## HABITS.

**Davenport, C[harles] B[enedict].** The Collembola of Cold Spring Beach [Long Island], with special reference to the movements of the *Poduridae*. Brooklyn, N.Y., Inst. Arts Sci. Cold Spring Harbor Monog., No. **2**, 1903, (32, with pl.). 25 cm.

## SYMBIOSIS.

**Escherich, K[arl].** Beiträge zur Kenntnis der Thysanuren. Reihe I. Zool. Anz., Leipzig, **26**, 1903, (345-366).

## PARASITISM.

**Galli-Valerio, B.** The part played by the fleas of rats and mice in the transmission of bubonic plague. J. trop. Med., London, **5**, 1903, (33-35).

**Wagner, Jul.** Aphanipterologische Studien. V. St. Petersburg, Hor. Soc. Ent. Ross., **36**, 1903, (125-156, Taf. II).

## 3627

## GEOGRAPHICAL DISTRIBUTION.

## d EUROPE.

## da SCANDINAVIA.

**Ågren, Hugo.** Zur Kenntniss der Apterygaten - Fauna Süd - Schwedens. Stettiner ent. Ztg., **64**, 1903, (113-176, mit 1 Taf.).

## de GERMAN EMPIRE.

**Voigts, Hans.** Beitrag zur Collembolenfauna von Bremen. Bremen, Abh. natw. Ver., **17**, 1903, (283-289).

## de BRITISH ISLANDS.

**Rothschild, Hon. N. C.** A new British flea; *Ceratophyllus dalei* n. sp. Entomologist, London, **36**, 1903, (297, pl. V).

——— A new British flea: *Ceratophyllus londiniensis*. Ent. Rec., London, **15**, 1903, (64-65).

——— A new British flea: *Typhloceras poppei* Wagner. l.c. (196, pl. IX).

## dk AUSTRIA-HUNGARY.

**Kohaut, R.** Ueber die Flöhe Ungarns. (Ungarisch) Állatt Közlém, Budapest, **2**, 1903, (25-46, 53-68, mit 7 Taf.).

## db RUSSIA IN EUROPE.

**Lignau, N.** Die Myriopoden der Pontusküsten des Caucasus. (Russ.) Odessa, Ann. Soc. Nat., **25**, Liefg 1, 1903, (82-125), deutsches Rés., (126-148, Taf. I-II).

## df FRANCE.

**Chalande, Jules.** Contribution à la faune des Myriopodes de France. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (221).

## dh ITALY.

**Verhoeff, Karl W.** Ueber Diplopoden. 1. Aufsatz: Formen aus Tirol, Italien und Cypern. 2. Aufs.: Griechische Tausendfüßler. Arch. Natg., Berlin, **68**, Bd 1, 1902, (175-198, mit 1 Taf.); **69**, Bd 1, 1903, (135-154, mit 2 Taf.).

## di SWITZERLAND.

**Faas, H[enri].** Myriopodes du Valais. Lausanne, Bul. Soc. Sci. Nat., **38**, 1902, (XXXV-XXXVI); Arch. Sci. Phys., Genève, (sér. 4), **14**, 1902, (73-74).

——— La faune myriopodique du Valais. Aarau, Verh. Schweiz. Natf. Ges., **85**, 1902, (80-81); Arch. Sci. Phys., Genève, (sér. 4), **14**, 1902, (554-556).

——— Myriopodes du Valais (Vallée du Rhône et vallées latérales). Rev. Suisse Zool., Genève, **10**, 1902, (31-164, av. 3 pl.).

**Rothenbühler, H.** Zur Myriopoden-fauna der Schweiz. II. Beitrag: Myriopoden des bündnerischen Rheingebietes. L.c. (540-561).

## dk AUSTRIA-HUNGARY.

**Verhoeff, Karl W.** Ueber Diplopoden. 1. Aufsatz: Formen aus Tirol, Italien und Cypern. 2. Aufs.: Griechische Tausendfüßler. Arch. Natg., Berlin, **68**, Bd 1, 1902, (175-198, mit 1 Taf.); **69**, Bd 1, 1903, (135-154, mit 2 Taf.).

——— Chilopoden von Südsteiermark, Krain und Kroatien. Berlin, SitzBer. Ges. natf. Freunde, **1902**, (90-93).

( $\pi$  2-9053)

## dl BALKAN PENINSULA.

**Verhoeff, Karl W.** Ueber Diplopoden. 1. Aufsatz: Formen aus Tirol, Italien und Cypern. 2. Aufs.: Griechische Tausendfüßler. Arch. Natg., Berlin, **68**, Bd 1, 1902, (175-198, mit 1 Taf.); **69**, Bd 1, 1903, (135-154, mit 2 Taf.).

## e ASIA.

**Carl, Joh.** Exotische Polydesmiden. Rev. Suisse Zool., Genève, **10**, 1902, (563-679).

## ej MALAY PENINSULA.

**Carl, Joh.** Exotische Polydesmiden. Rev. Suisse Zool., Genève, **10**, 1902, (563-679).

## f AFRICA.

## ff EAST AFRICA.

**Pocock, R. I.** Myriapoda. In Nat. Hist. Sokotra. Special. Bull. Liverp. Mus.

## g NORTH AMERICA.

**Carl, Joh.** Exotische Polydesmiden. Rev. Suisse Zool., Genève, **10**, 1902, (563-679).

## gi WESTERN UNITED STATES.

**Chamberlin, Ralph V.** Myriopods from Beulah, New Mexico. Philadelphia, Pa., Proc. Acad. Nat. Sci., **55**, 1903, (35-40).

——— New *Lithobii* from California and Oregon. L.c. (152-160).

——— *Henicops dolichopus*, a new Chilopod from Utah. Smithsonian Inst., Nation. Mus. Proc., **24**, 1902, (797-800).

## h CENTRAL AND SOUTH AMERICA.

**Carl, J[oh.].** Revision amerikanischer Polydesmiden. Rev. Suisse Zool., Genève, **11**, 1903, (543-562, av. 2 pls.).

## hb CENTRAL AMERICA.

**Pocock, R. I.** Class Diplopoda. Biol. Centr. Amer., London, **1903**, (41-56, pls. IV, V, 3 figs. in text).

**Bekker, E. E.** . . . vergleichende Anatomie der Kopfdrüsen bei den Collembolen. (Russ.) Moskva, Dnevn. Zool. Otd. Imp. Obšč. Nub. jest., III, 5, 1903, (1-19, mit 1 Taf.).

**Carl, J.** Un organe embryonnaire. Arch. Sci. Phys., Genève, (sér. 4), 16, 1903, (601-604).

**Davenport, C. B.** The Collembola of Cold Spring Beach [Long Island], with special reference to the movements of the *Poduridae*. Brooklyn, N.Y., Inst. Arts Sci Cold Spring Harbor Monog. No. 2, 1903, (32, with pl.).

**Guthrie, Joseph E.** The Collembola of Minnesota. (Geological and natural history survey of Minnesota. Zoological series IV. Edited by Henry F. Nachttrieb). Minneapolis, 1903, (vi + 110, with pl.).

**Lécaillon, A.** Sur la disposition, la structure et le fonctionnement de l'appareil reproducteur mâle des collembolés. Paris, Bul. soc. philom., (sér. 9), 4, 1902, (99-103).

**Voigts, H.** Beitrag zur Collembolen-fauna von Bremen. Bremen, Abh. natw. Ver., 17, 1903, (283-289).

**Willem, V.** La position des Anurophoriens dans la classification des collembolés. Bruxelles, Ann. Soc. ent. Belgique, 46, 1902, (21-23).

#### SPECIAL.

*Achorutes reuteri* n. nom. = *A. manubrialis* Reut. **Ågren, H.** Stettiner ent. Ztg, 64, 1903, (113-176, mit 1 Taf.).

*Achorutoides* n. gen., *A. antarcticus* n. sp. **Willem, V.** Bruxelles, Ann. Soc. ent. Belgique, 45, 1901, (260).

*Actaletes*, anatomy, peculiarities. **Willem, V.** l.c. 46, 1902, (11-12).

*Anuraphorus isotoma* n. sp. **Börner, C.** Berlin, SitzBer. Ges. Natf. Freunde, 1903, (138).

*Cryptopygus* n. gen., *C. antarcticus* n. sp. **Willem, V.** Bruxelles, Ann. Soc. ent. Belgique, 45, 1901, (261).

*Cyphoderus heymonsi* n. sp. **Börner, C.** Berlin, SitzBer. Ges. natf. Freunde, 1903, (158).

*Dicyrtoma frontalis* n. sp. District of Columbia. **Banks, N.** Washington,

D.C., Proc. Ent. Soc., 5, 1903, (154-155).

*Entomobrya* nn. spp. **Guthrie, J. E.** The Collembola of Minnesota. Minneapolis, 1903, (73-75).

———— *comosa* n. sp. **Börner, C.** Berlin, SitzBer. Ges. natf. Freunde, 1903, (145).

*Friesia caldaria* n. sp. **Guthrie, J. E.** The Collembola of Minnesota. Minneapolis, 1903, (95).

———— *decemoculata* n. sp. **Börner, C.** Berlin, SitzBer. Ges. natf. Freunde, 1903, (134).

*Heteromurus* nn. spp. **Börner, C.** l.c. (156).

*Isotoma* nn. spp. **Börner, C.** l.c. (140-142).

———— nn. spp. **Guthrie, J. E.** The Collembola of Minnesota. Minneapolis, 1903, (63-72).

———— *börneri* n. sp. Antarktisches Gebiet. **Enderlein, G.** Wissenschaftliche Ergebnisse der deutschen Tiefsee-Expedition, Bd 3, Lfg 7, Jena, 1903, (239).

———— *octo-oculata* n. sp. **Willem, V.** Bruxelles, Ann. Soc. ent. Belgique, 45, 1901, (262).

———— *poppiusi* n. sp. Siberia. **Axelsson, W. M.** Helsingfors, Öfvers. F. Vet. Soc., 45, [No. 20], 1902-1903, (1-13).

———— *tenebricola*, l'influence de la lumière sur la pigmentation. **Willem, V.** Bruxelles, Ann. Soc. ent. Belgique, 45, 1901, (193-196).

*Lepidocyrtus* nn. spp. **Börner, C.** Berlin, SitzBer. Ges. natf. Freunde, 1903, (149-154).

———— nn. spp. **Guthrie, J. E.** The Collembola of Minnesota. Minneapolis, 1903, (86-89).

*Megalothorax incertus* n. sp. **Börner, C.** Berlin, SitzBer. Ges. natf. Freunde, 1903, (160).

*Neanura* nn. spp. **Börner, C.** l.c. (135-136).

———— *quadrioculata* n. sp. **Guthrie, J. E.** The Collembola of Minnesota. Minneapolis, 1903, (101).

*Onychiurus pseudinermis* n. sp. **Börner, C.** Berlin, SitzBer. Ges. natf. Freunde, 1903, (132).

*Orchesella* nn. spp. Guthrie, J. E. The Collembola of Minnesota. Minneapolis, 1903, (61).

*Paronella fuelleborni* n. sp. Börner, C. Berlin, SitzBer. Ges. natf. Freunde, 1903, (143).

*Pentapleotoma (Uzelia)* n. gen., P. dahli n. sp. Börner, C. l.c. (137).

*Podura lamelligera* n. sp. Börner, C. l.c. (143).

*Pseudachorutes palmiensis* n. sp. Börner, C. l.c. (133).

*Pseudosinella coigtsi* n. sp. Bremen. Börner, C. in Voigts, H. Bremen, Abh. natw. Ver., 17, 1903, (285).

*Sira flava* n. sp. Ågren, H. Stettiner ent. Ztg, 64, 1903, (157).

—— *villosa* n. sp. Börner, C. Berlin, SitzBer. Ges. natf. Freunde, 1903, (147).

*Sminthurides* nn. spp. Börner, C. l.c. (160-161).

*Sminthurus* nn. spp. Börner, C. l.c. (164-165).

—— nn. spp. District of Columbia. Banks, N. Washington, D.C., Proc. Ent. Soc., 5, 1903, (154-155).

—— nn. spp. Guthrie, J. E. The Collembola of Minnesota. Minneapolis, 1903, (50-52).

—— *repandus* n. sp. Ågren, H. Stettiner ent. Ztg, 64, 1903, (163).

*Xenylla* nn. spp. Börner, C. Berlin, SitzBer. Ges. natf. Freunde, 1903, (130).

—— *gracilis* n. sp. Guthrie, J. E. The Collembola of Minnesota. Minneapolis, 1903, (95).

## ANOPLURA.

Cholodkovsky, N. Zur Morphologie der Pediculiden. Zool. Anz., Leipzig, 27, 1903, (120-125).

## SPECIAL.

*Haematopinus praecisus* non *praecitus*. Neumann, L. G. Arch. parasit., Paris, 6, 1902, (144, av. fig.).

(# 2-9053)

## MALLOPHAGA.

## GENERAL.

Carriker, M. A., jun. Mallophaga from birds of Costa Rica, Central America. Lincoln, Nebr., Univ. Stud., 3, 1903, (123-197, with pl.).

Morse, M. Synopsis of North American invertebrates. 19. The Trichodectidae. Amer. Nat., Boston, Mass., 37, 1903, (600-624). Separate 24 cm. (Contributions from the Department of Zoology and Entomology of the Ohio State University No. 12).

## SPECIAL.

*Colpocephalum* nn. spp. Carriker, M. A., jun. Lincoln, Nebr., Univ. Stud., 3, 1903, (123-197).

*Decophorus* nn. sp. Carriker, M. A., jun. l.c. (123-197).

*Gonicocotes eurysema* n. sp. Carriker, M. A., jun. l.c. (123-197, with pl.).

*Goniodes* nn. spp. Carriker, M. A., jun. l.c. (123-197, with pl.).

*Kelloggia* n. gen., *K. brevipes* n. sp. Carriker, M. A., jun. l.c. (123-197, with pl.).

*Laemobothrium* nn. spp. Carriker, M. A., jun. l.c. (123-197, with pl.).

*Lipeurus postmarginatus* n. sp., *L. longipes* var. *tinami* n. var. Carriker, M. A., jun. l.c. (123-197, with pl.).

*Menopon* nn. spp. et nn. varr. Carriker, M. A., jun. l.c. (123-197).

*Nesiotesinus* n. gen., *N. demersa* n. sp. Kellogg, V. L. Wood's Holl, Mass., Mar. Biol. Lab. Bull., 5, 1903, (85-91, with text-fig.).

*Nirmus* nn. spp. et nn. varr. Carriker, M. A., jun. Lincoln, Nebr., Univ. Stud., 3, 1903, (123-197, with pl.).

*Nitzschia* nn. spp. Carriker, M. A., jun. l.c. (123-197).

*Ornitholax* n. gen., *O. robustus* n. sp. Carriker, M. A., jun. l.c. (123-197, with pl.).

*Philoceanus* n. gen., *P. becki* n. sp. Kellogg, V. L. Wood's Holl., Mass., Mar. Biol. Lab. Bull., 5, 1903, (85-91, with text-fig.).



*Physostomum* nn. spp. **Carriker, M. A.**  
jun. Lincoln, Nebr., Univ. Stud., **3**,  
1903, (123-197, with pl.).

## THYSANOPTERA.

### GENERAL.

**Ribaga, C.** I principali insetti dell'  
ordine dei Fisapodi dannosi alle piante  
coltivate. Bollettino di Entomologia  
agraria, Padova, **9**, 1902, (169-177, 193-  
205, 227-235).

### SPECIAL.

*Anaphothrips striata*. **Cary, L. R.**  
Agric. Exp. Sta., Maine, Orono, Bull. No.  
**83**, 1902, (95-128, with 7 pls.); [review],  
Washington, D.C., U. S. Dept. Agric.  
Off. Exp. Sta., Rec., **14**, 1902, (373).

*Heliothrips haemorrhoidalis*, danni [da  
essa] causati agli agrumi. **Leonardi, G.**  
Bollettino di Entomologia agraria, Pa-  
dova, **9**, 1902, (241-244).

*Phloeothrips tepperi* Uzel. **Ludwig,**  
F. Gera, Jahresber. Ges. Natw., **43-45**,  
(1900-1902), 1903, (85).

## SIPHONAPTERA.

### GENERAL.

**Kohaut, R.** Ueber die Flöhe Ungarns.  
(Ungarisch) Allatt. Közlem., Budapest,  
**2**, 1903, (25-46, 53-68, mit 7 Taf.).

**Nuttall, G. H. F.** Note on the sup-  
posed transmission of plague by fleas  
and of relapsing fever by bed-bugs. **J.**  
trop. Med., London, **5**, 1903, (65).

**Rainbow, W. J.** . . . Fleas para-  
sitic on the tiger cat. Sydney, N.S.W.,  
Rec. Austr. Mus., **5**, 1903, (53-55).

**Rothschild, N. C.** Types of Siphon-  
aptera in the Daleian collection. Ent.  
Mag., London, **39**, 1903, (144-146).

**Wagner, Jul.** Beiträge zur Kennt-  
niss der Vogelpuliciden. St. Petersburg,  
Hor. Soc. Ent. Ross., **36**, 1903, (278-  
293, Taf. III, IV).

### SPECIAL.

*Ceratophyllus* nn. spp. aus Vögel.  
**Wagner, J.** St. Petersburg, Hor. Soc.  
Ent. Ross., **36**, 1903, (278-293, Taf. III,  
IV).

*Ceratophyllus dalei* n. sp. **Rothschild,**  
Hon. N. C. Entomologist, London, **36**,  
1903, (297-298).

— *fringillae* Walker. **Roth-**  
**schild, N. C.** Ent. Rec., London, **15**,  
1903, (308-309, pl. XV).

— *londiniensis* n. sp. **Roth-**  
**schild, N. C.** l.c. (64-65).

— *terribilis* n. sp. Canada.  
**Rothschild, N. C.** Nov. Zool., Tring,  
**10**, 1903, (317-318, pl. IX).

*Ceratopsylla* nn. spp. **Rothschild,**  
N. C. l.c. (321-325, pl. X).

— *aegyptius* n. sp. Cairo.  
**Rothschild, N. C.** Ent. Mag., London,  
**39**, 1903, (83-84, pl. I).

*Hystrihopsylla tripestinata* n. sp.  
**Tiraboschi, C.** Arch. Hyg., München,  
**46**, 1903, (251-263).

*Neopsylla* n. gen. **Wagner, J.** St.  
Peterburg, Hor. Soc. Ent. Ross., **36**,  
1903, (138).

*Palaeopsylla* n. gen. **Wagner, J.** l.c.  
(137).

*Parapsyllus* n. gen., for *Pulex longi-*  
*cornis*. Antarktisches Gebiet. **Enderlein,**  
G. Wissenschaftliche Ergebnisse der  
deutschen Tiefsee-Expedition, Bd 3,  
Lfg 7, Jena, 1903, (259).

*Pulex* nn. spp. East Africa. **Roth-**  
**schild, Hon. N. C.** Nov. Zool., Tring,  
**10**, 1903, (312-314, pl. V).

— nn. spp. Egypt and  
Soudan. **Rothschild, N. C.** Ent.  
Mag., London, **39**, 1903, (84-87, pls. I-  
II).

— *pallidus* Tasch., notice sur  
les espèces voisines; 2 nn. spp. (Russ.)  
**Wagner, J.** Rev. Russ. Ent., Jaroslavl,  
**3**, 1903, (308-310).

*Stephanocircus* nn. spp. **Rothschild,**  
N. C. Nov. Zool., Tring, **10**, 1903,  
(318-319, pl. IX).

*Typhloceras* n. gen., *T. poppei* n. sp.  
**Wagner, J.** St. Petersburg, Hor. Soc.  
Ent. Ross., **36**, 1903, (152-154).

— *poppei* Wagner, new to  
Britain. **Rothschild, N. C.** Ent. Rec.,  
London, **15**, 1903, (196-197, pl. IX).

*Typhlopsylla* Einteilung; *T. proxima*  
n. sp. Wirt *Crocidura aranea*.  
**Wagner, J.** St. Petersburg, Hor. Soc.  
Ent. Ross., **36**, 1903, (141-147).

*Vermipsylla* Schimk. and fam.  
*Vermipsyllidae* Wagn., notice. (Russ.)  
 Wagner, J. Rev. Russ. Ent., Jaroslavl,  
 3, 1903, (294-296).

## LIST OF NEW GENERA AND SPECIES.

## ACHORUTES [Collembola].

\_\_\_\_\_ *reuteri* n. nom. Ågren. 1.

## ACHORUTOIDES n. gen. [Collembola].

\_\_\_\_\_ Willem. 46.

\_\_\_\_\_ *antarcticus*. Willem. 46.

## ANUROPHORUS [Collembola].

\_\_\_\_\_ *isotoma*. Börner. 5.

## CERATOPHYLLUS [Siphonaptera].

\_\_\_\_\_ *dalei*. Rothschild. 26.

\_\_\_\_\_ *londiniensis*. Rothschild. 29.

\_\_\_\_\_ *oligochaetus*. Wagner. 44.

\_\_\_\_\_ *rusticus*. Wagner. 44.

\_\_\_\_\_ *spinosis*. Wagner. 44.

\_\_\_\_\_ *terribilis*. Rothschild. 28.

## CERATOPSYLLA [Siphonaptera].

\_\_\_\_\_ *aegyptius*. Rothschild. 24.

\_\_\_\_\_ *caminae*. Rothschild. 28.

\_\_\_\_\_ *distinctus*. Rothschild. 28.

\_\_\_\_\_ *fosteri*. Rothschild. 28.

\_\_\_\_\_ *insignis*. Rothschild. 28.

\_\_\_\_\_ *martialis*. Rothschild. 28.

\_\_\_\_\_ *reductus*. Rothschild. 28.

\_\_\_\_\_ *wolfssohni*. Rothschild. 28.

## COLPOCEPHALUM [Mallophaga].

\_\_\_\_\_ *extraneum*. Carriker. 7.

\_\_\_\_\_ *gypagi*. Carriker. 7.

\_\_\_\_\_ *luroris*. Carriker. 7.

\_\_\_\_\_ *mirabile*. Carriker. 7.

\_\_\_\_\_ *osborni* var. *costaricensis*  
 n. var. Carriker. 7.

## CRYPTOPYGUS n. gen. [Collembola].

\_\_\_\_\_ Willem. 46.

\_\_\_\_\_ *antarcticus*. Willem. 46.

## CYPHODERUS [Collembola].

\_\_\_\_\_ *heymonsi*. Börner. 5.

## DECOPHORUS [Mallophaga].

\_\_\_\_\_ *brunneri*. Carriker. 7.

\_\_\_\_\_ *cancellatus*. Carriker. 7.

\_\_\_\_\_ *platystoma* var. *umbrosus* n.  
 var. Carriker. 7.

\_\_\_\_\_ *transversifrons*. Carriker. 7.

\_\_\_\_\_ *underwoodi*. Carriker. 7.

## DICYETOMA [Collembola].

\_\_\_\_\_ *frontalis*. Banks. 3.

## ENTOMOBRYA [Collembola].

\_\_\_\_\_ *bicolor*. Guthrie. 14.

\_\_\_\_\_ *comosa*. Börner. 5.

\_\_\_\_\_ *clitellaria*. Guthrie. 14.

## FRIESIA [Collembola].

\_\_\_\_\_ *caldaria*. Guthrie. 14.

\_\_\_\_\_ *decemoculata*. Börner. 5.

## GONIOCOOTES [Mallophaga].

\_\_\_\_\_ *eurysema*. Carriker. 7.

## GONIODES [Mallophaga].

\_\_\_\_\_ *aberrans*. Carriker. 7.

\_\_\_\_\_ *minutus*. Carriker. 7.

## GRASSIELLA [Thysanura].

\_\_\_\_\_ *dilatata*. Escherich. 12.

\_\_\_\_\_ *nana*. Escherich. 12.

\_\_\_\_\_ *pallens*. Escherich. 12.

## HETEROMURUS [Collembola].

\_\_\_\_\_ *caeruleascens*. Börner. 5.

\_\_\_\_\_ *tetraphthalmus*. Börner. 5.

## HYSTRICHOPSYLLA [Siphonaptera].

\_\_\_\_\_ *tripectinata*. Tiraboschi. 35.

## ISOTOMA [Collembola].

\_\_\_\_\_ *agreni*. Börner. 5.

\_\_\_\_\_ *bidenticula*. Guthrie. 14.

\_\_\_\_\_ *börneri*. Enderlein. 11.

\_\_\_\_\_ *caeruleara*. Guthrie. 14.

\_\_\_\_\_ *catena*. Guthrie. 14.

\_\_\_\_\_ *menotabilis*. Börner. 5.

\_\_\_\_\_ *minima*. Guthrie. 14.

\_\_\_\_\_ *muskegis*. Guthrie. 14.

\_\_\_\_\_ *octo-oculata*. Willem. 46.

\_\_\_\_\_ *poppiusi*. Axelson. 2.

## JAPYX [Collembola].

\_\_\_\_\_ *chilensis*. Verhoeff. 37.

\_\_\_\_\_ *minimus*. Swenk. 34.

\_\_\_\_\_ *novaezeelandiae*. Verhoeff.  
 37.

## KELLOGGIA n. gen. [Mallophaga].

\_\_\_\_\_ Carriker. 7.

\_\_\_\_\_ *breripes*. Carriker. 7.

## LAEMOBOTHRUM [Mallophaga].

\_\_\_\_\_ *delogramma*. Carriker. 7.

\_\_\_\_\_ *oligothrix*. Carriker. 7.

## LEPIDOCYTETUS [Collembola].

\_\_\_\_\_ *aenescens*. Guthrie. 14.

\_\_\_\_\_ *annulicornis*. Börner. 5.

\_\_\_\_\_ *decemoculatus*. Guthrie. 14.

\_\_\_\_\_ *domesticus*. Börner. 5.

\_\_\_\_\_ *fallax*. Börner. 5.

\_\_\_\_\_ *flavovirens*. Börner. 5.

\_\_\_\_\_ *nyassicus*. Börner. 5.

\_\_\_\_\_ *sezoeculatus*. Guthrie. 14.

## LEPISMA [Aptera].

\_\_\_\_\_ *braunsi*. Escherich. 12.

\_\_\_\_\_ *elegans*. Escherich. 12.

\_\_\_\_\_ *emiliae*. Escherich. 12.

\_\_\_\_\_ *indica*. Escherich. 12.

- LIFEURUS** [Mallophaga].  
 ——— *longipes* var. *tinami* n. var. Carriker. 7.  
 ——— *postmarginatus*. Carriker. 7.
- MEGALOTHORAX** [Collembola].  
 ——— *incertus*. Börner. 5.
- MENOPON** [Mallophaga].  
 ——— *difficile*. Carriker. 7.  
 ——— *laticorpus*. Carriker. 7.  
 ——— *macrocybe*. Carriker. 7.  
 ——— *ortalidis*. Carriker. 7.  
 ——— *palloris*. Carriker. 7.  
 ——— *praecursor* var. *meridionale* n. var. Carriker. 7.  
 ——— *stenodesmum*. Carriker. 7.  
 ——— *thoracicum* var. *fuscum* n. var. Carriker. 7.  
 ——— ——— var. *majus* n. var. Carriker. 7.  
 ——— *tilyrus*. Carriker. 7.  
 ——— *tridens* var. *costaricense* n. var. Carriker. 7.
- NEANUBA** [Collembola].  
 ——— *pseudomuscorum*. Börner. 5.  
 ——— *quadrioculata*. Guthrie. 14.  
 ——— *verrucosa*. Börner. 5.
- Neopsylla** n. gen. [Aphaniptera].  
 Wagner. 43.
- Nesiotinus** n. gen. [Mallophaga].  
 Kellogg. 15.  
 ——— *demersa*. Kellogg. 15.
- NICOLETIA** [Aptera].  
 ——— *tezensis*. Ulrich. 36.
- NIRMUS** [Mallophaga].  
 ——— *brachythorax* var. *ptilognis* n. var. Carriker. 7.  
 ——— *caliginus*. Carriker. 7.  
 ——— *francisi*. Carriker. 7.  
 ——— *fuscus* var. *epustulatus* n. var. Carriker. 7.  
 ——— *hastiformis*. Carriker. 7.  
 ——— *melanococcus*. Carriker. 7.  
 ——— *parabolecybe*. Carriker. 7.  
 ——— *pseudophaeus*. Carriker. 7.  
 ——— *rhampthasti*. Carriker. 7.
- NITZSCHIA** [Mallophaga].  
 ——— *bruneri*. Carriker. 7.  
 ——— ——— var. *meridionalis* n. var. Carriker. 7.
- ONTYCHIURUS** [Collembola].  
 ——— *pseudinermis*. Börner. 5.
- ORCHESELLA** [Collembola].  
 ——— *albosa*. Guthrie. 14.  
 ——— *zebra*. Guthrie. 14.
- Ornicholax** n. gen. [Mallophaga].  
 Carriker. 7.  
 ——— *robustus*. Carriker. 7.
- Palaeopsylla** n. gen. [Aphaniptera].  
 Wagner. 43.
- Parapsyllus** n. gen. [Aphaniptera].  
 Enderlein. 11.
- PARONELLA** [Collembola].  
 ——— *fuelleborni*. Börner. 5.
- Pentapleotama** n. gen. [Collembola].  
 Börner. 5.  
 ——— *dahli*. Börner. 5.
- Philoscanus** n. gen. [Mallophaga].  
 Kellogg. 15.  
 ——— *becki*. Kellogg. 15.
- PHYSOSTOMUM** [Mallophaga].  
 ——— *doratophorum*. Carriker. 7.  
 ——— *jiminezi*. Carriker. 7.  
 ——— *leptosomum*. Carriker. 7.  
 ——— *subangulatum*. Carriker. 7.
- PODURA** [Collembola].  
 ——— *lamelligera*. Börner. 5.
- PSEUDACHORUTES** [Collembola].  
 ——— *palmiensis*. Börner. 5.
- PSEUDOSINELLA** [Collembola].  
 ——— *voigtei*. Börner. 336.
- PULEX** [Siphonaptera].  
 ——— *cheopis*. Rothschild. 24.  
 ——— *cheprenis*. Rothschild. 24.  
 ——— *cleopatrae*. Rothschild. 24.  
 ——— *conformis*. Wagner. 42.  
 ——— *gerbilli*. Wagner. 42.  
 ——— *isidis*. Rothschild. 27.  
 ——— *nubicus*. Rothschild. 24.  
 ——— *regis*. Rothschild. 27.  
 ——— *uttherbyi*. Rothschild. 24.
- SIRA** [Collembola].  
 ——— *flava*. Ågren. 1.  
 ——— *villosa*. Börner. 5.
- SMINTHURIDES** [Collembola].  
 ——— *hystrix*. Börner. 5.  
 ——— *inaequalis*. Börner. 5.
- SMINTHURUS** [Collembola].  
 ——— *curvisetis*. Guthrie. 14.  
 ——— *erinaceus*. Börner. 5.  
 ——— *facialis*. Banks. 3.  
 ——— *friedlaenderi*. Börner. 5.  
 ——— *longisetis*. Guthrie. 14.  
 ——— *minnesotensis*. Guthrie. 14.  
 ——— *repandus*. Ågren. 1.  
 ——— *trilineatus*. Banks. 3.

- STEPHANOCIRCUS** [Siphonaptera].  
 — *minerva*. Rothschild. 28.  
 — *thomasi*. Rothschild. 28.

- Typhloceras** n. gen. [Siphonaptera].  
 Wagner. 43.  
 — *poppei*. Wagner. 43.

- TYPHLOPSYLLA** [Siphonaptera].  
 — *proxima*. Wagner. 43.

- XENTYLLA** [Collembola].  
 — *gracilis*. Guthrie. 14.  
 — *schillei*. Börner. 5.  
 — *tallbergi*. Börner. 5.

### 3903-3831 ORTHOPTERA, NEUROPTERA AND TRICHOPTERA.

#### TITLES.

- Adelung**, N. N. Blattodées (Orthoptera) rapportées par M. le capitaine G. W. Kochovski de l'Abyssinie méridionale et des contrées limitrophes en 1898. St. Petersburg, Ann. Mus. zool. Ac. Sc., 8, 1903, (300-337, Taf. XX). [3827 3831]. 1

- Agnus**, Al. N. Description d'un Névroptère fossile nouveau (*Homoioptera gigantea*). Naturaliste, Paris, (sér. 2), 25, 1903, (53-55, av. fig.). [3831]. 2

- Antony**, Maude H. v. Needham, James J.

- Banks**, Nathan. Notes on *Brachynemuri* of the *B. ferox* group. Washington, D.C., Proc. Ent. Soc., 5, 1903, (173-178, with 1 pl.). [3831]. 3

- Neuropteroid insects from Arizona. Washington, D.C., Proc. Ent. Soc., 5, 1903, (237-245, with pl.). [3827 gi 3831]. 4

- A revision of the Nearctic *Chrysopidae* [with bibliography]. Philadelphia, Pa., Acad. Nat. Sci. Trans. Amer. Ent. Soc., 29, 1903, (137-162, with pl.). [3827 g 3831]. 5

- A new species of *Brachynemurus*. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (86). [3831]. 6

- A new species of *Habrophlebia*. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (235). [3831]. 7

- Banks**, Nathan. [*Troctes needhami* and *T. bicolor* Enderlein synonyms of *T. niger* and *T. bicolor* Banks.] Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (241). [3831]. 8

- New name for *Dictyopteryx* Pictet [*Periodes*]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (241). [3831]. 9

- Some new Neuropteroid insects. New York, N.Y., J. Ent. Soc., 11, 1903, (236-243). [3831]. 10

- Bentivoglio**, [T.]. Sul valore sistematico delle varietà della specie *Platygemis pennipes* Pall. (Sunto). Mon. zool. ital., Firenze, 13, 1902, (Supplemento), (22). [3831]. 11

- Berlese**, Antonio. La grillotalpa ed il modo seguito per combatterla a Nola. Bollettino di Entomologia agraria, Padova, 9, 1902, (104-116, 128-140, 150-159, 185-189). [3831]. 12

- Berry**, Edward W. New or hitherto unknown Ephemerid nymphs of the eastern United States. [New Jersey.] Amer. Nat., Boston, Mass., 37, 1903, (25-31). [3827 gg 3831]. 13

- Beutenmüller**, William. A new katydid [*Cyrtophyllus floridensis* n. sp.] from Florida. New York, N.Y., Bull. Amer. Mus. Nat. Hist., 19, 1903, (637-638). [3827 gh 3831]. 14

- Bianchi**, V. L. v. Jacobson, G. G.

- Signell**, [Preservation of dragonflies]. Ent. Mag., London, 39, 1903, (151). [3803]. 15

- Blatchley**, W[illia] S[tanley]. The Orthoptera of Indiana. An illustrated descriptive catalogue of the species known to occur in the state, with bibliography, synonymy and descriptions of new species. Indiana, Rep. Dept. Geol. Nat. Res., Indianapolis, 27, 1902, [1903], (123-471, with pl.). [3827 gg 3831]. 16

- Bolívar**, Ignacio. Contributions à l'étude des Mecopodinae. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (167-178). [3827 ia 3831]. 17

- Borg**, Hjalmar. Annotations on Swedish Neuroptera. (Norw.) Entomol. Tidskr., Stockholm, 22, 1901, (175-176). [3827 da 3831]. 18

- Borgogno, C.** Un combat singulier. Moineau contre sauterelle verte. Nantes, Bul. Soc. Sci. Nat., (Sér. 2, 3), **13**, 1903, (III). [3819 3831 5819 5831]. 19
- Brauner, A.** Notices sur divers Odonates. (Russ.) Rev. Russ. Ent., Jaroslavl, **3**, 1903, (89-91). [3827 *db* 3831]. 20
- Brimley, C. S.** List of dragonflies (Odonata) from North Carolina, especially from the vicinity of Raleigh. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (150-157). [3827 *gh* 3831]. 21
- *Telagrion daeckii* (Odonata) at Raleigh, North Carolina. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (335-336). [3827 *gh* 3831]. 22
- Brockhausen, H.** Ueber den Ohrwurm. Münster, Jahresber. ProvVer. Wiss., **29**, (1900-1901), 1901, (31-32). [3831]. 23
- Brown, H. H.** Butterflies and dragonflies in Banffshire. Ann. Scot. Nat. Hist., Edinburgh, **1903**, (247). [3827 *de* 4427 *de*]. 24
- Bruner, Laurence.** Directions for collecting, preparing and preserving specimens of Orthoptera for the cabinet. [Reprint from Special Bulletin No. 2 from the Department of Entomology in the University of Nebraska.] J. Appl. Microsc., Rochester, N.Y., **6**, 1903, (2374-2379). [3803]. 25
- Grasshopper notes for 1901. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **38**, 1902, (39-49). [3827 *gi* 3831]. 26
- Killing destructive locusts with fungous diseases. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **38**, 1902, (50-61). [3803 3831]. 27
- Bugnton, E.** Observation relative à un cas de mimétisme. (*Blepharis mendica*). Lausanne, Bul. Soc. Sci. Nat., (sér. 4), **39**, 1903, (385-388, 1 pl.); Arch. Sci. Phys., Genève, (sér. 4), **16**, 1903, (342-344). [3823 3831]. 28
- Burr, M.** Notes on the Forficularia. VII. Some hitherto unpublished descriptions of new species, by the late M. Auguste de Bormans. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (231-241, 265-270). VIII. Five new species from the de Bormans collection. l.c. (270-276). [3831]. 30
- Burr, M.** Wingless *Forficula auricularia*. Ent. Rec., London, **15**, 1903, (254). [3823 3831]. 31
- Orthoptera in the Isle of Wight. Ent. Rec., London, **15**, 1903, (254-257). [3827 *de*]. 32
- [The use of earwig forceps]. Ent. Rec., London, **15**, 1903, (262). [3819]. 33
- Synopsis of the Orthoptera of W. Europe. Ent. Rec., London, **15**, 1903, (314-319 (still incomplete)). [3827 *d* 3831]. 34
- Orthoptera. Nat. Hist. Sokotra, (411-426, pl. XXV). [3827 *f* 3831]. 35
- Orthoptera—Fauna of the Maldive and Laccadive Islands, **1**, (234-236). [3827 *ma* 3831]. 36
- Calvert, P[hilip] P[owell].** Neuroptera—Odonata [from Beulah, New Mexico]. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1902, (42-43). [3827 *gi* 3831]. 37
- Variation in *Hetaerina titia* Drury (Odonata). Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (192-193). [3823 3831]. 38
- Synopsis of three species of *Coryphaea* [in paper by E. B. Williamson]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (8-10, with pl.). [3831]. 39
- Additions to the Odonata of New Jersey, with descriptions of two new species [in *Telagrion* and *Somatochlora*]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, ([33]-41, with pl.). [3827 *gg* 3831]. 40
- *Somatochlora provocans*. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (77). [3831]. 41
- [*Leistes eurus* Say to be added to New Jersey lists of Odonata]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (158). [3827 *gg* 3831]. 42
- [Spiders as enemies of dragonflies]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (161-162). [3819 3831]. 43
- On some American *Gomphinae* (Odonata). Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (183-192, with pl.). [3827 *h* 3831]. 44

**Calvert**, Philip P[owell]. [Note on Maryland Odonata, with paper by F. Ris]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (219-220). [3827 gh 3831]. 45

— Distribution of New York dragon flies [Odonata]; additional data. Albany Univ., N.Y., Bull. St. Mus., No. 68, 1903, (276-279). [3827 gg 3831]. 46

— On *Gomphus fraternus*, *externus* and *crassus* (Order Odonata). Philadelphia, Pa., Ent. News Acad. Nat. Sci., 12, 1901, (85)-73, with pl.; [reprint], Philadelphia, Cont. Zool. Lab. Univ. Pa., 1901, 1902, ([65]-73, with pl.). [3831]. 47

— Neuroptera, Odonata. Biol. Centr.-Amer., London, 1903, (129-144, pl. V). [3831]. 48

v. Ris. F.

**Candell**, Andrew Nelson. Notes on Orthoptera from Colorado, New Mexico, Arizona, and Texas, with descriptions of new species. Washington, D.C., Smithsonian Inst., Nation. Mus. Proc., 26, 1903, (775-809, with 1 pl.). [3827 gi 3831]. 49

— The *Phasmidae* or walking-sticks of the United States. Washington, D.C., Smithsonian Inst., Nation. Mus. Proc., 26, 1903, (863-885, with 4 pls.). [3827 gf 3831]. 50

— Some new or unrecorded Orthoptera from Arizona. Washington, D.C., Proc. Ent. Soc., 5, 1903, (162-166). [3827 gi 3831]. 51

— Notes on the nomenclature of *Blattidae*. Washington, D.C., Proc. Ent. Soc., 5, 1903, (232-235). [3831]. 52

— Notes on the Orthoptera of Bermuda with the description of a new species [*Gryllus bermudensis* n. sp.]. Washington, D.C., Proc. Ent. Soc., 5, 1903, (329-331). [3827 la 3831]. 53

— A greedy insect. [Mantid]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (60). [3819 3831]. 54

— Note on *Phasmidae*. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (314-316). [3831]. 55

**Child**, C. M. and **Young**, A. N. Regeneration of the appendages in nymphs of the *Agrionidae*. Arch. Entw.Mech.,

Leipzig, 15, 1903, (543-602, mit 3 Taf.). [3811]. 56

**Clément**, A. L. Le criquet marbré. Nature, Paris, (1<sup>re</sup> sem.), 31, 1903, (97-98, av. fig.). [3831 3819 3815]. 57

**Cockerell**, [Theodore] D[ru] A[lison]. Notes on the Orthopteran genus *Leprus*. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (305-307). [3831]. 58

**Conklin**, Edwin G[rant]. Amitosis in the egg follicle cells of the cricket. [*Gryllus*] [with bibliography]. Amer. Nat., Boston, Mass., 37, 1903, (667-675). [3815 3831]. 59

**Currie**, Rolla P. *Myrmeleonidae* from Arizona. Washington, D.C., Proc. Ent. Soc., 5, 1903, (272-284). [3827 gi 3831]. 60

— The Odonata collected by Messrs. Schwarz and Barber in Arizona and New Mexico. Washington, D.C. Proc. Ent. Soc., 5, 1903, (298-303). [3827 gi 3831]. 61

**Davis**, K. C. *Sialididae* of North and South America [with bibliography]. Albany, Univ. N.Y., Bull. St. Mus., No. 63, 1903, (442-499, with pl.). [3827 gh 3831]. 62

**Dobson**, H. T. Emergence of *Aeschna grandis*. Entomologist, London, 36, 1903, (253-254). [3815 3831]. 63

**Du Buysson**, R. Catalogue des orthoptères locustides des collections du Muséum (1<sup>re</sup> liste). Bul. Muséum, Paris, 1903, (225-227). [3831]. 64

**Eaton**, A. E. A new species of *Ephemeridae* from Norway. Ent. Mag., London, 39, 1903, (30). [3827 da 3831]. 65

**Enderlein**, Günther. Ueber die Morphologie, Gruppierung und systematische Stellung der Corrodentien. Zool. Anz., Leipzig, 26, 1903, (423-437). [3831 3807]. 66

— Ein neuer Copeognathentypus, zugleich ein neuer deutschen Wohnungsschädling. Zool. Anz., Leipzig, 27, 1903, (76). [3831 3819]. 67

— Ueber die Stellung von *Leptella* Reut. und *Reuterella* nov. gen., die Vertreter zweier neuer europäischer Copeognathensubfamilien. Zool. Anz., Leipzig, 27, 1903, (131-134). [3831]. 68

**Enderlein**, Günther. Zur Kenntniss amerikanischer Psociden. Zool. Jahrb., Jena, Abt. f. Syst., **18**, 1903, (351-364, mit 2 Taf.). [3827 g 3831]. 69

— Zur Kenntniss europäischer Psociden. Zool. Jahrb., Jena, Abt. f. Syst., **18**, 1903, (365-382, mit 1 Taf.). [3831 3827d]. 70

— Neue Copeognathen aus Kamerun. Zool. Jahrb., Jena, Abt. f. Syst., **19**, 1903, (1-8, mit 1 Taf.). [3827 fd 3831]. 71

— *Micropsocus musae* (Kunstler et Chaine), eine vermeintliche Gallmücke (*Kiefferia musae* n. g. n. sp. Kunstler et Chaine 1902). Zool. Jahrb., Jena, Abt. f. Syst., **19**, 1903, (288-292). [3831 4231]. 72

— Die Copeognathen des Indo-australischen Faunengebietes. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., **1**, 1903, (179-344, mit Taf. III-XIV, und 12 text-fig.). [3807 3827 ef g i 3831]. 73

**Pinot**, A. Sur le genre *Euthymia* de la tribu des *Acridiidae*, famille des *Acridioidea*, ordre des insectes orthoptères. Paris, Ann. soc. ent., **71**, (2<sup>e</sup> semest.), 1902, (620-636, av. fig.). [3831]. 74

**Förster**, F. Ueber die Formen der Aeschnidengattung *Jagoria* Karsch. Insektenbörse, Leipzig, **20**, 1903, (245). [3831]. 75

— Neotropische Libellen. Insektenbörse, Leipzig, **20**, 1903, (355-356). [3827 h 3831]. 76

— Odonaten aus Neu-Guinea. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., **1**, 1903, (508-554). [3827 ia 3831]. 77

**Forbes**, H. O. Pseudo-neuroptera. Nat. Hist. Sokotra, (397). [3827 ff 3831]. 78

**Frühlich**. Ueber das Vorkommen von *Pachytylus cinerascens* Fieb. und anderer Insekten bei Kahl am Main. Berliner Ent. Zs., **48**, 1903, (146-148). [2427 de 3831]. 79

**Frühlich**, Carl. Die Odonaten und Orthopteren Deutschlands mit besonderer Berücksichtigung der bei Aschaffenburg vorkommenden Arten, nach der analyt. Methode beah. IV. Mitteilung des naturwissenschaftlichen Vereins zu Aschaffenburg, hrsg. zur Feier seines 25-jährigen Bestehens. Jena (G. Fischer),

1903, (VI + 106, mit 6 Taf.). 23 cm. 4 M. [3827 de 3831]. 80

**Froggatt**, Walter W. Notes on the genus *Psychopeia* Newman, with descriptions of new species. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, **28**, 1903, (453-456, with 1 pl.). [3831]. 81

— The white ant city, a nature study. Agric. Gaz., Sydney, N.S.W., **14**, 1903, (726-730, with 1 pl. and text-figs.). [3819 3831]. 82

— Locusts and grasshoppers. Part I. Agric. Gaz., Sydney, N.S.W., **14**, 1903, (1102-1110, with 1 pl.). [3819]. 83

**Gentil**. Note sur la présence du *Bacillus gallicus* Charp. au Mans. Mans (le), Bul. soc. agricult. sci., (sér. 2), **30**, 1901-1902, (425-426). [3827 df 3831]. 84

**Glard**, A. La ponte des Libellules du genre *Lestes*. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (189-192). [3819 3831]. 85

**Graf**, J. L. Additions to the above list [with a list of the dragon-flies observed in western Pennsylvania, by E. B. Williamson]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (113-114). [3827 gg 3831]. 86

**Gross**, J. Ueber das Palmén'sche Organ der Ephemeren. Zool. Jahrb., Jena, Abt. f. Anat., **19**, 1903, (91-106, mit 1 Taf.). [3807 3831]. 87

**Grünberg**, Karl. Zur Kenntniss der Odonatenfauna des ost-afrikanischen Seengebiets. Ergebnisse der Nyassa-See- und Kinga-Gebirge-Expedition der Hermann und Elise geb. Heckmann-Wentzel-Stiftung. Zool. Jahrb., Jena, Abt. f. Syst., **18**, 1903, (695-726). [3827 ff 3831]. 88

— Neue Odonaten aus dem Njassa-Gebiet, gesammelt von Dr. Fülleborn. Berlin, Sitzber. Ges. natf. Freunde, **1902**, (230-237). [3827 ff 3831]. 89

**Hancock**, J. L. The genus *Phyllonotus* [renamed *Phyllolettix*]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1903, (188). [3831]. 90

**Heath**, Harold. The habits of California termites. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **4**, 1903, (47-63). [3819 3827 gi 3831]. 91

**Herbig, Conrad.** Anatomie und Histologie des tibialen Gehörapparates von *Gryllus domesticus*. Arch. mikr. Anat., Bonn, **61**, 1903, (697-729, mit 2 Taf.). [3807 3831]. 92

**Higgins, Helen T.** The development and comparative structure of the gizzard in the Odonata Zygoptera. [Thesis] B.S. . . . University of Pennsylvania . . . 1900]. Philadelphia, Pa., Proc. Acad. Nat. Sci., **53**, 1901, (126-141, with pl.): [reprint], Philadelphia, Cont. Zool. Lab., Univ. Pa., **1901**, 1902, ([126]-141, with pl.). [3807 3815 3831]. 93

**Hindse, B. K.** Zur Orthopterenfauna des Gouvernements Uja. (Russ.) Moskva, Trd. kruž. izsl. russ. prir., **1**, 1903, (107-110). [3827 db]. 94

**Hoag, M. E.** [*Lestes uncatus* Kirby in Iowa]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., Amer. Ent. Soc., **13**, 1902, (88-89). [3827 gi 3831]. 95

**Jacobson, G. G. and Bianchi, V. L.** Orthoptera and Pseudoneuroptera des russischen Reiches und der angrenzenden Gebiete, nach Dr. R. Tümpel's: Die Geradflügler Mitteleuropas. (Russ.) Lief. V. St. Petersburg, 1903, (353-432, mit Taf. 18-21). 28 cm. [3803 3827 db]. 96

**Jacot, [E.]** Les sauterelles. Dissertation entomologique. Messenger Suisse Rom., Fribourg, **16**, 1903, (76, 116-117). [3803 3831]. 97

**Jakovlev, V. E.** Une nouvelle espèce du genre *Parameles* Sauss. de la Crimée. (Russ.) Rev. Russ. Ent., Jaroslavl, **3**, 1903, (41-43, av. 2 figs.). [3831]. 98

**Kempny, Peter.** Nachtrag zur Perliden-Fauna Norwegens. Wien, Verh. ZoolBot. Ges., **51**, 1901, (788-791). [3827 da 3831]. 99

**Kirby, W. F.** Notes on *Forficulidae*, with descriptions of new species in the collection of the Natural History Museum, South Kensington. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (60-68). [3831]. 100

Notes on *Blattidae*, &c., with descriptions of new genera and species in the collection of the British Museum, South Kensington. No. I. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (404-415); II, *ib.*, **12**, 1903, (273-280); III, *ib.*, (373-381). [3831]. 101

**Kirby, W. F.** Description of a new species of *Mantidae*. Zoologist, London, (Ser. 4), **7**, 1903, (304). [3831]. 102

Planipennia. Nat. Hist. Socotra, (404-405). [2827 ff 3831]. 103

**Klapálek, F.** Ueber die Morphologie der Genitalsegmente und Genitalanhänge bei den Trichopteren I. Die Familien *Rhyacophidae*, *Philopotamidae*, und *Hydroptylidae*. (Böhmisch) Prag, Rozpr. Česká Ak. Frant. Jos., **11**, 1902, No. 35, (39, 2 Taf.). [3807 3831] 104

die Morphologie der Körperringe und Geschlechtsanhänge bei Trichopteren. I. Deskript. Teil. Familien *Hydropterygidae*, *Molannidae*, *Leptoceridae*, *Phryganeidae*, *Sericostomatidae*, *Limnophilidae*. II. Vergleich. Teil. (Böhmisch) Prag, Rozpr. Česká Ak. Frant. Jos., **12**, 1903, Nr. 43, (62, 2 Taf.). [3807 3831]. 105

**Krause, Ernst.** Die Elefanten-Heuschrecke. Prometheus, Berlin, **14**, 1903, (665-668). [3831]. 106

**Krauss, Hermann August.** Orthopteren aus Australien und dem malayischen Archipel, gesammelt von Professor Dr. Richard Semon. Jena, Denkschr. med. Ges., **8**, 1903, (743-770, mit Taf.). [3831 3827 i eg]. 107

Beitrag zur Kenntnis der Orthopteren Deutsch-Südwestafrikas. Wien, Verh. ZoolBot. Ges., **51**, 1901, (281-293). [3819 3827 fg 3831]. 108

**Krauss, Anton H.** Zwei neue Phaneropteriden. Insektenbörse, Leipzig, **20**, 1903, (308-309). [3831]. 109

De Phaneropteridarum Br. novis speciebus quinque. Insektenbörse, Leipzig, **20**, 1903, (372-373). [3831]. 110

Zwei neue Phaneropteridenspezies. Insektenbörse, Leipzig, **20**, 1903, (395). [3831]. 111

**Krajčl, August.** Nachträge zur „Übersicht der böhmischen Orthopteren“ v. J. 1896. Prag, Sitzber. Ges. Wiss., **1903**, Nr. 23, (2). [3827 dk]. 112

**Krüger, L.** Die Arten der Odonatengattung *Neurothemis*. Stettiner ent. Ztg., **64**, 1903, (248-291). [3831]. 113

**Küster, Hermann.** Die Uebertragung bakterieller Infektionen durch Insekten. Centralbl. Bakt., Jena, Abt. 1, **33**, Referate, 1903, (90-94). [3819 3831]. 114



**Kuznetsov, N. I.** Excursions d'été en 1902, sur la côte sud de la Crimée. (Russ.) *Rev. Russ. Ent.*, Jaroslavl, **3**, 1903, (5-7). [3827 db 4427 db]. 115

——— A new species of *Embia* Latz from the Crimea. *Rev. Russ. Ent.*, Jaroslavl, **3**, 1903, (208-210). [3831]. 116

**Laidlaw, F. F.** Odonata. Part I. [in] *Fascic. Malay. Zool.*, **1**, (185-200). Includes some notes by Dr. F. Förster. [3827 eg 3831]. 117

**Lauterborn, Robert.** Tracheenkiemen an den Beinen einer Perliden-Larve (*Taeniopteryx nebulosa* L.). *Zool. Anz.*, Leipzig, **26**, 1903, (637-642). [3831 3807]. 118

——— und **Rimsky-Korsakow, M.** Eine merkwürdige Hydroptiliden-Larve (*Ithytrichia lamellaris* Eaton). *Zool. Anz.*, Leipzig, **26**, 1903, (280-288). [3831 3807]. 110

**Loir, A.** La destruction des termites. *Paris, C.-R. Acad. sci.*, **136**, 1903, (1290-1291). [3819 3831]. 120

**Ludwig, F[r]iedrich.** Zwei neue Pflanzenschädlinge unserer Gewächshäuser und Gärten. [Japanische Heuschrecken u. Amseln.] *Zs. Pflanzenkrankh.*, Stuttgart, **13**, 1903, (210-213). [3831 3819 5831 5819]. 121

**McClendon, J. F.** The larvae of *Myrmeleon texanus* Banks and *M. rusticus* Hagen. [Contributions from the Zoological laboratory of the University of Texas. No. 33]. Philadelphia, Pa., *Ent. News Acad. Nat. Sci.*, **13**, 1902, (209-213, with 1 pl.). [3831 3815]. 122

——— The life history of *Ulula hyalina* Latreille. *Austin, Cont. Zool. Lab. Univ. Tex.*, No. **27**; *Amer. Nat. Boston, Mass.*, **36**, 1902, (421-429). [3815 3831]. 123

**McLachlan, R.** An annotated list of Odonata collected in West Central Spain, by Dr. T. A. Chapman and Mr. G. C. Champion in June and July, 1902. *Ent. Mag.*, London, **39**, 1903, (7-9). [3827 dg 3831]. 124

——— On the Trichopterous genus *Mysetrophora* Klapálek. *Ent. Mag.*, London, **39**, 1903, (31-32). [3831]. 125

——— Neuroptera (in the Linnean sense) collected by the Rev. A. E. Eaton in South Norway in July, 1902, with

synonymic and other notes. *Ent. Mag.*, London, **39**, 1903, (32-35). [3803 3827 da]. 126

**McLachlan, R.** *Hemianax ephippiger*, Burm., taken at Devonport in February. *Ent. Mag.*, London, **39**, 1903, (36). [3831]. 127

——— *Amphibiotica*. *Nat. Hist. Sokotra*, (398-403, pls. XXIV, XXIVa). [3827 ff 3831]. 128

**Maehon.** Acridiens de l'Argentine. *Arch. Sci. Phys.*, Genève, (sér. 4), **15**, 1903, (571). [3827 hi 3831]. 129

**Marchal.** Les criquets en 1901. *Autun, Bul. soc. sci. nat.*, **15**, 1902, (Proc.-verb. 28-30). [3819 3831]. 130

——— Une remarquable éclosion d'Ephémères. *Autun, Bul. soc. sci. nat.*, **15**, 1902, (Proc.-verb. 260-262). [3819 3831]. 131

**Marlatt, C[harles] L[ester].** The white ant (*Termes flavipes* Koll.). Revised reprint from Washington, D.C., *Bull. U. S. Dept. Agric. Div. Ent.*, (N. Ser.), No. **4**, (70-76); Washington, D.C., *Cir. U. S. Dept. Agric. Div. Ent.*, (Ser. 2), No. **50**, 1902, (8). [3819 3831]. 132

——— Cockroaches. [*Periplaneta* and *Ectobia*]. Revised reprint from Washington, D.C., *Bull. U. S. Dept. Agric. Div. Ent.*, (N. Ser.), No. **4**, (84-95); Washington, D.C., *Cir. U. S. Dept. Agric. Div. Ent.*, (Ser. 2), No. **51**, 1902, (15). 23.4 cm. [3819 3831]. 133

**Martynov, Andrej.** Die Entstehung der peritropfen Hüllen bei den Larven der Trichopteren. (Russ.) *Moskva, Dnevn. Zool. Otd. Imp. Obšč. ĭub. jest.*, **III**, 5, 1903, (20-24, mit 1 Taf.). 35 cm. [3815 3811]. 134

**Melander, Axel Leonard.** Notes on the structure and development of *Embia terana*. *Wood's Holl, Mass., Mar. Biol. Lab. Bull.*, **4**, 1903, (99-118). [3815 3831]. 135

——— Some additions to the Carboniferous terrestrial Arthropod fauna of Illinois. *Chicago, Ill., J. Geol. Univ. Chic.*, **11**, 1903, (178-198, with pl.). [2427 gg 3031 3831]. 136

**Monti, Rina.** Contributo alla conoscenza della *Dolichopoda geniculata* (O. G. Costa). *Nota 1.* *Milano, Rend. Ist. lomb.*, (Ser. 2), **35**, (fasc. 12), 1902, (470-491, con. tav.). [3831]. 137

- Morgan, H. A.** The differential grasshopper [*Melanoplus differentialis*] in the Mississippi delta—other common species. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. 30, 1901, (7-33). [3819 3827 *gh gi* 3831]. 138
- Morton, F.** Notes sur l'élevage des Phyllies. Lausanne, Bull. Soc. Sci. Nat. (sér. 4), 39, 1903, (401-407, 1 pl.); Arch. Sci. Phys., Genève, (sér. 4), 16, 1903, (748-750). [3819 3831]. 139
- Namiye, [Motoyoshi].** Odonata of Prov. Tosa. (Japanese) Dobuts. Z., Tokyo, 15, 1903, (297). [3827 *ec* 3831]. 140
- Plates IX-XIII illustrating Japanese Odonata. Dobuts. Z., Tokyo, 15, 1903. [3831]. 141
- Needham, James G.** A genealogic study of dragon-fly wing venation. Thesis. . . Ph. D. . . Cornell. Washington, D.C., Smithsonian Inst., Nation. Mus. Proc., 26, 1903, (703-764, with 24 pls.). [3823 3831]. 142
- A new genus and species of dragon-fly [*Cyanocharis valga* n. gen. and sp.] from Brazil. Washington, D.C., Proc. Biol. Soc., 16, 1903, (55-58). Separate 23.3 cm. [3827 *hl* 3831]. 143
- Odonata of New Jersey [*Hagenia brevistylus*]. Philadelphia, Pa., Ent. News. Acad. Nat. Sci., 14, 1903, (159). [3827 *gg* 3831]. 144
- Food of brook trout [*Salmo fontinalis*] in Bone pond. [Species of Chironomidae, Ephemeridae and Trichoptera]. Albany, Univ. N. Y., Bull. St. Mus., No. 68, 1903, (204-217, with pl.). [3831 4231 5419 5431]. 145
- Life histories of Odonata, Suborder Zygoptera, Damselflies. Albany Univ., N. Y., Bull. St. Mus., No. 68, 1903, (218-276, with pl.). [3815 3831]. 146
- Remarks on Hydroptilid larvae and their metamorphosis. Zool. Anz., Leipzig, 27, 1903, (108-110). [3815 3831]. 147
- and **Antony, Maude H.** The skewness of the thorax in the Odonata. New York, N.Y., J. Ent. Soc., 11, 1903, (117-125, with 1 pl.). [3807 3823 3831]. 148
- Phillips, J. L.** Notes on *Melanoplus femoratus*. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., No. 40, 1903, (87). [3831]. 149
- Pierantoni, U.** Nuovo contributo alla conoscenza del sistema nervoso stomatogastrico degli Ortoteri. Napoli, Boll. Soc. Nat., 15, (1901), 1902, (54-60, con. tav.). [3807 3831]. 150
- Poche, Franz.** Entgegnung [betr. Krauss' Bearbeitung der Hemimeriden]. Zool. Anz., Leipzig, 26, 1903, (229-230). [3831]. 151
- Zur Nomenclatur der Orthopteren, nebst einigen allgemein nomenclatorischen Bemerkungen in Hinsicht auf die neuen internationalen Nomenclaturregeln. Zool. Anz., Leipzig, 26, 1903, (233-241). [0070 3803]. 152
- Rehn, James A. G.** On the genus *Phymotettix* Glover (*Haldemania* Auct.). Philadelphia, Pa., Proc. Acad. Nat. Sci., 54, 1902, [1903], (595-598). [3831]. 153
- Contributions toward a knowledge of the Orthoptera of Japan and Korea. I. Acrididae. Philadelphia, Pa., Proc. Acad. Nat. Sci., 54, 1902, [1903], (620-637). [3827 *eb ec* 3831]. 154
- Notes on the Orthoptera of New Mexico and Western Texas. Philadelphia, Pa., Proc. Acad. Nat. Sci., 54, 1902, [1903], (717-727). [3827 *gi* 3831]. 155
- A revision of the Orthopterous genus *Homoeogamia*. Philadelphia, Pa., Proc. Acad. Nat. Sci., 55, 1903, (177-192). [3831]. 156
- Studies in American *Forficulidae*. Philadelphia, Pa., Proc. Acad. Nat. Sci., 55, 1903, (299-312). [3831]. 157
- Orthoptera [from Beulah, New Mexico]. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., 29, 1902, (41-42). [3827 *gi* 3831]. 158
- Notes on West Indian Orthoptera, with a list of the species known from the island of Porto Rico. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., 29, 1903, (129-136). [3827 *hc* 3831]. 159

- Rehn, James A. G.** Studies in American *Blattidae*. Philadelphia, Pa., Acad. Nat. Sci. Trans. Amer. Ent. Soc., **29**, 1903, (259-290). [3827 *gh* 3831]. 160
- A new *Aptenopedes* from Florida. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (14). [3827 *gh* 3831]. 161
- [Pairing of] *Schistocerca alutacea* and *rubiginosa*. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (89). [3819 3831]. 162
- Nomenclatural notes on two genera of Orthoptera. [*Blatta* and *Acrydium*]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (101-102). [3831]. 163
- Two new species of N. American Stenopelmatinae. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (240-241). [3827 *gf* 3831]. 164
- Records of New Jersey and Pennsylvania Orthoptera. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (309-316). [3827 *gg* 3831]. 165
- Notes on some interesting species of *Forficulidae* and *Blattidae* from the eastern United States. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (125-126). [3827 *gg gh* 3831]. 166
- A new genus of the orthopterous sub-family *Phaneropterinae*. [*Alcopteron carribbeum* n. gen. et sp.]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (141-142). [3831]. 167
- A new roach of the genus *Ischnoptera* from Florida. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (233-234). [3827 *gh* 3831]. 168
- Description of a new genus [*Falcicula*] of *Gryllidae*, with a note on the genus *Aphonogryllus* [re-named *Aphonomorphus*]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (258-260). [3831]. 169
- On two earwigs of the genus *Labia* from Costa Rica. Philadelphia, Pa., Ent. News Acad. Nat. Sci., Amer. Ent. Soc., **14**, 1903, (292-293). [3827 *hb* 3831]. 170
- Notes and remarks on North American *Blattidae*, *Mantidae* and *Phasmidae*, with a catalogue of the *Forficulidae*, *Blattidae*, *Mantidae* and *Phasmidae* recorded from Texas. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (325-331). [3827 *gi* 3831]. 171
- Rimsky-Korsakow, M. r.** Lauterborn, Robert.
- Ris, F.** Note on a small collection of dragonflies (Odonata) from Baltimore, Maryland [with note by Philip P. Calvert]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (216-220). [3827 *gh* 3831]. 172
- Die schweizerischen Arten der Perliden-Gattung *Nemura*. Schaffhausen, Mitt. Schweiz. Entomol. Ges., **10**, 1902, (378-405, mit 6 pls.). [3827 *di* 3831]. 173
- Vorweisung europäischer und amerikanischer Libellen. Schaffhausen, Mitt. Schweiz. Entomol. Ges., **10**, 1903, (436-443). [3827 3807 3831]. 174
- Einiges ueber Kurzflügelige Perliden. Schaffhausen, Mitt. Schweiz. Entomol. Ges., **10**, 1903, (443-446). [3831]. 175
- Trichopteren des Cantons Tessin und angrenzender Gebiete. Schaffhausen, Mitt. Schweiz. Entomol. Ges., **11**, 1903, (5-18, mit 1 pl.). [3827 *di dh* 3831]. 176
- Sainte-Claire Deville, J.** Exploration entomologique des grottes des Alpes-Maritimes. Ann. soc. ent., Paris, **71**, 1902, [1903], (695-709, av. fig.). [2431 2427 *df* 2631 3031 3431 3631 3831 4831]. 177
- Sajó, Karl.** Mimicry im Kreise der Wasserjungfern. Prometheus, Berlin, **14**, 1903, (733-734). [3819]. 178
- Sander, L.** Die Wanderheuschrecken und ihre Bekämpfung, in unseren afrikanischen Kolonien. Berlin, 1902, (554) [Review] by W. F. K., Nature, London, **67**, (244). [3819 3831]. 179
- Saussure, Henri de.** Diagnosen von 4 neuen Gattungen der Eumastaciden (Orthoptera Acridoidea). Zool. Anz., Leipzig, **26**, 1903, (412-415). [3831]. 180
- *Analecta Entomologica*. II. Notice sur la tribu des Eumastaciens. Rev. Suisse Zool., Genève, **11**, 1903, (43-112, 1 pl.). [3827 *fe* 3831]. 181

**Sellards, E. H.** Some new structural characters of Paleozoic cockroaches [with description of *Megablattina beecheri* n. gen. et sp. from Illinois Coal Measures]. Amer. J. Sci., New Haven, Conn., (Ser. 4), **15**, 1903, (307-315, with 2 pls.). [3831]. 182

——— *Megablattina* Sellards (non Brongniart) a correction. [Archoblattina n. nom.]. Amer. J. Sci., New Haven, Conn., (Ser. 4), **15**, 1903, (488). [3831]. 183

**Semenov, A. P.** Les Dermaptères du voyage de N. A. Zarudny dans la Perse orientale en 1900-1901. (Russ.) St. Petersburg, Hor. Soc. Ent. Ross., **36**, 1903, (192-198). [3827 ch.]. 184

——— Dermaptera nova aut minus cognita. II. Rev. Russ. Ent., Jaroslavl, **3**, 1903, (19-21). [3831]. 185

——— Notices sur les Dermaptères de la faune de la Russie I. (Russ.) Rev. Russ. Ent., Jaroslavl, **3**, 1903, (196-199). [3827 db ea 3831]. 186

**Sheldon, John L.** Cultures of *Empusa* [with bibliography]. J. Appl. Microsc., Rochester, N.Y., **6**, 1903, (2212-2220, with pl.). [3831]. 187

**Shelford, R.** Bionomical notes on some Bornean Mantidae. Zoologist, London, (Ser. 4), **7**, 1903, (293-304). [3819 3827 eg 3831]. 188

**Silantjev, A. A.** Capture d'un termite (*Calotermes flavicollis*, Fabr.) au Caucase. (Russ.) Rev. Russ. Ent., Jaroslavl, **3**, 1903, (29). [3827 db]. 189

**Silfenius, A[ntti] J[ohannes].** Über im Wasser lebende Schmetterlinge und auf Land lebende Trichopteren. (Finnisch) Luonnon Ystävä, Helsingfors, **1903**, 6-8, (125-128). [4419 3819 4415 3831]. 190

**Silvestri, Filippo.** Intorno la società dei Termiti considerati in rapporto alla agricoltura e all'uomo. Bollettino di Entomologia agraria, Padova, **9**, 1902, (25-31). [3803 3831]. 191

**Simpson, C. B.** Photographing nests of *Hydropsyche*. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (93-94, with figs. 4, 5). [3803 3831]. 192

——— The log-cabin builder. (*Limnephilus indrius* Walker). Washington, D.C., Proc. Ent. Soc., **5**, 1903, (98-100). [3831]. 193

**Snodgrass, Robert Evans.** Papers from the Hopkins Stanford Galapagos expedition, 1898-1899, VIII. Entomological results (7). *Schistocerca*, *Sphingonotus*, and *Halmenus*. Washington, D.C., Proc. Acad. Sci., **4**, 1902, (411-454, with 2 pl.). Separate. 24.5 cm. [3827 ng 3831]. 194

——— Notes on the internal anatomy of *Peranabrus scabricollis* (Thom.). New York, N.Y., J. Ent. Soc., **11**, 1903, (183-188, with 2 pls.). [3807 3831]. 195

**Spelser, P[aul].** Kein neuer Typus von Hypermetamorphose! Zool. Anz., Leipzig, **26**, 1903, (515-516). [3815]. 196

**Stebbing, E. P.** Insect pests of the Sugar-cane in India. Calcutta, Ind. Mus. Notes, **5**, 1903, (64-91). [2419 3819 4019 4419 4619 4819]. 197

**Strand, Embr.** Trichoptera and Neuroptera-Planipennia collected in Norway. (Norw.) Entomol. Tidskr., Stockholm, **22**, 1901, (93-96). [3897 da 3831]. 198

**Struck, Rudolf.** Beiträge zur Kenntnis der Trichopterenlarven. Lübeck, Mitt. geogr. Ges., (2. Reihe), **H. 17**, 1903, (41-124, mit 7 Taf.). [3807 3815]. 199

**Tepper, J. G. O.** Notes and remarks on the described genera and species of the Australian and Polynesian *Phasmodae* or "spectre insects." Vict. Nat., Melbourne, **19**, 1903, (138-142). [3819 3827 ni 3831]. 200

**Thienemann, A.** Analkiem bei den Larven von *Glossosoma boltcni* Curt. und einigen Hydropsychiden. Zool. Anz., Leipzig, **27**, 1903, (125-129). [3831 3807]. 201

**Tschuproff, Helene.** Ueber die Entwicklung der Keimblätter bei den Libellen. (Vorläuf. Mitt.) Zool. Anz., Leipzig, **27**, 1903, (29-34). [3815]. 202

**Tümpel, R.** Die Geradflügler Mitteleuropas. [Umschlagtitel:] Beschreibung der bis jetzt bekannten Arten mit biolog. Mitteilungen, Bestimmungstabellen u. Anleitung für Sammler . . . Eisenach (M. Wilckens) [corrig.: Leipzig (F. E. Perthes)], 1901, (IV + 308, mit 23 Taf.). 28 cm. Dazu Supplementflg.: Sammlungs-Etiketten für Geradflügler. Ebenda (ohne Paginierung). [3803] 203

**Ulmer, Georg.** Weitere Beiträge zur Metamorphose der deutschen Trichopteren. Stettiner ent. Ztg, **64**, 1903, (179-226, mit 3 Taf.). [3815 3831]. 204

Beiträge zur Metamorphose der deutschen Trichopteren. [Forts.] Allg. Zs. Ent., Neudamm, **8**, 1903, (11-15, 70-73, 90-93, 209-211, 315-316). [3815 3831]. 205

Ueber das Vorkommen von Krallen an den Beinen einiger Trichopterenpuppen. Allg. Zs. Ent., Neudamm, **8**, 1903, (261-265). [3807 3831]. 206

Zur Trichopteren - Fauna von Thüringen und Harz. (Mit Beschreibung einiger neuer Metamorphose-Stationen.) Allg. Zs. Ent., Neudamm, **8**, 1903, (341-350). [3827 de 3815 3831]. 207

Zur Trichopteren - Fauna von Hessen. Allg. Zs. Ent., Neudamm, **8**, 1903, (397-406). [3827 de 3831]. 208

Deutsche Wasserinsekten und ihre Entwicklung. Aus d. Heimat, Stuttgart, **15**, 1902, (33-48, 81-85). [3815]. 209

**Verhoeff, Karl W.** Ueber Dermapteren (2. Aufsatz: Neue ungeflügelte Eudermopteren - Gattungen). Berlin, SitzBer. Ges. natf. Freunde, **1902**, (7-18). [3831]. 210

Die verwandtschaftliche Stellung von *Hemimerus*. Berlin, SitzBer. Ges. natf. Freunde, **1902**, (87-89). [3831]. 211

**Vosseler, Julius.** Ueber einige Beobachtungen aus dem kleinasiatischen Insektenleben. Stuttgart, Jahreshfte Ver. Natk., **59**, 1903, (IC). [3819]. 212

**Wadsworth, Mattie.** Sixth addition to the list of dragonflies (Odonata) of Manchester, Kennebec county Maine. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (246-247). [3826 gg 3831]. 213

**Weele, H. W. van der.** Description of a new genus and species of Holophthalmous *Ascalaphidae*. Leiden, Notes Mus. Jentink, **23**, 1903, (234-236). [3827 hh 3831]. 214

**Werner, Franz.** Neue Locustiden aus Westasien. Zool. Anz., Leipzig, **26**, 1903, (528-531). [3831]. 215

**Werner, Franz.** Die Orthopterenfauna von Pernitz. (Piestingthal, N-Oe.) Wien, JahrBer. Entom. Ver., **11**, (1900), 1901, (103-108). [3827 dk]. 216

**Westerlund, John Agardh.** Pseudoneuroptera in the neighbourhood of Ronneby, (South Sweden). (Swedish) Entomol. Tidskr., Stockholm, **22**, 1901, (137-142). [3827 da 3831]. 217

**Williams, C. E.** Exhibition of living *Gongylus gongyloides*, a floral *Mantis*. Cambridge, Proc. Phil. Soc., **12**, 1903, (279). [3819 3831]. 218

**Williamson, E. B.** A new species of *Gomphus* (Odonata) related to *G. fraternus*. Philadelphia, Pa., Ent. News Sci., **13**, 1902, (47-49). [3831]. 219

A list of the dragonflies observed in western Pennsylvania [with Additions to the above list, by J. L. Graf]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (65-71, 108-114, with pl.). [3827 gg 3831]. 220

Dragonflies (Odonata) from the Magdalen islands. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (144-146). [3827 gd 3831]. 221

A proposed new genus [*Coryphaeschina*] of Odonata (dragonflies) of the subfamily Aeschninae, group *Aeschna* [with synopsis of three species of *Coryphaeschina* by Philip P. Calvert]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (2-10, with pl.). [3831]. 222

Spiders as enemies of dragonflies. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (160-161). [3819 3831]. 223

The dragonflies (Odonata) of Tennessee, with a few records for Virginia and Alabama. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (221-229). [3827 gh 3821]. 224

A hybrid dragonfly of the genus *Gomphus* (Odonata). Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (253-258). [3823 3831]. 225

**Woodworth, C. W.** Grasshoppers in California. Agric. Exp. Sta., California, Berkeley, Bull. No. **142**, 1902, (36, with 17 figs.). 23 cm. [Review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., **14**, 1903, (471-472). [3827 gi 3831]. 226

**Xamheu.** Instinct de la maternité chez le *Chelidura dilatata* Lafresnaye, orthoptère du groupe des Forficulien. Naturaliste, Paris, (sér. 2), **25**, 1903, (143-144). [3819 3831]. 227

**Young, A. N. v. Child, C. M.**

from Special Bulletin No. 2 from the Department of Entomology in the University of Nebraska. J. Appl. Microsc., Rochester, N.Y., **6**, 1903, (2374-2379).

**Simpson, C. B.** Photographing nests of *Hydropsephen*. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (93-94, with figs. 4, 5).

### 3803 COMPREHENSIVE AND GENERAL WORKS.

#### GENERAL.

**Jacobson, G. G. und Bianchi, V. L.** Orthoptera und Pseudoneuroptera des russischen Reiches und der angrenzenden Gebiete; nach Dr. R. Tümpel's, Die Geradflügler Mitteleuropas. (Russ.) Lief. V. St. Petersburg, 1903, (353-432, mit Taf. 18-21). 28 cm.

**Jacot, [E.]** Les sauterelles. Dissertation entomologique. Messager Suisse Rom., Fribourg, **16**, 1903, (76, 116-117).

**McLachlan, R.** Neuroptera (in the Linnean sense) collected by the Rev. A. E. Eaton in South Norway in July, 1902, with synonymic and other notes. Ent. Mag., London, **39**, 1903, (32-35).

**Poche, Franz.** Zur Nomenclatur der Orthopteren, nebst einigen allgemein nomenclatorischen Bemerkungen in Hinsicht auf die neuen internationalen Nomenclaturregeln. Zool. Anz., Leipzig, **26**, 1903, (233-241).

**Tümpel, R.** Die Geradflügler Mitteleuropas. [Umschlagtitel:] Beschreibung der bis jetzt bekannten Arten mit biolog. Mitteilungen, Bestimmungstabellen u. Anleitung für Sammler . . . Eisenach (M. Wilckens) [corrig.: Leipzig (F. E. Perthes)], 1901, (IV + 308, mit 23 Taf.). 28 cm. Dazu Supplementflg.: Sammlungs-Etiketten für Geradflügler. Ebenda (ohne Paginierung).

#### TECHNIQUE.

**Signell.** [Preservation of dragonflies.] Ent. Mag., London, **39**, 1903, (151).

**Bruner, L.** Directions for collecting, preparing and preserving specimens of Orthoptera for the cabinet. [Reprint

#### ECONOMICS.

**Berlese, Antonio.** La grillotalpa ed il modo seguito per combatterla a Nola. Bollettino di Entomologia agraria, Padova, **9**, 1902, (104-116, 128-140, 150-159, 185-189).

**Bruner, Laurence.** Killing destructive locusts with fungous diseases. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **38**, 1902, (50-61).

**Silvestri, Filippo.** Intorno la società dei Termiti considerati in rapporto alla agricoltura e all' uomo. Bollettino di Entomologia agraria, Padova, **9**, 1902, (25-31).

### 3807 STRUCTURE.

#### GENERAL.

**Enderlein, Günther.** Ueber die Morphologie, Gruppierung und systematische Stellung der Corrodantien. Zool. Anz., Leipzig, **26**, 1902, (423-437).

**Lauterborn, R[obert] und Rimsky-Korsakow, M.** Eine merkwürdige Hydroptiliden-Larve (*Ithytrichia lamellaris* Eaton). Lc. (280-288).

**Ris, F.** Vorweisung europäischer und amerikanischer Libellen. Schaffhausen, Mitt. Schweiz. Entomol. Ges., **10**, 1903, (436-443).

**Snodgrass, Robert E.** Notes on the internal anatomy of *Peranabrus scabricollis* (Thom.). New York, N.Y., J. Ent. Soc., **11**, 1903, (183-188, with 2 pls.).

**Struck, Rudolf.** Beiträge zur Kenntnis der Trichopterenlarven. Lübeck, Mitt. geogr. Ges., (2. Reihe), H. **17**, 1903, (41-124, mit 7 Taf.).

## NERVOUS SYSTEM AND ORGANS OF SENSE.

**Herbig, Conrad.** Anatomie und Histologie des tibialen Gehörapparates von *Gryllus domesticus*. Arch. mikr. Anat., Bonn, **61**, 1903, (697-729, mit 2 Taf.).

**Pierantoni, U.** Nuovo contributo alla conoscenza del sistema nervoso stomatogastrico degli Ortoteri. Napoli, Boll. Soc. Nat., **15**, (1901), 1902, (54-60, con tav.).

## ALIMENTARY SYSTEM.

**Higgins, Helen J.** The development and comparative structure of the gizzard in the Odonata Zygoptera. [Thesis . . . B.S. . . . University of Pennsylvania . . . 1900]. Philadelphia, Pa., Proc. Acad. Nat. Sci., **53**, 1901, (126-141, with pl.); [reprint], Philadelphia, Cont. Zool. Lab., Univ. Pa., **1901**, 1902, ([126]-141, with pl.).

## CIRCULATORY AND RESPIRATORY ORGANS.

**Thienemann, A.** Analkiemien bei den Larven von *Glossosoma boltoni* Curt. und einigen Hydropsychiden. Zool. Anz., Leipzig, **27**, 1903, (125-129).

## REPRODUCTIVE ORGANS.

**Klapalek, F.** Über die Morphologie der Genitalsegmente und Genitalanhänge bei den Trichopteren. I. Die Familien *Rhyacophalidae*, *Philopotamidae* und *Hydroptylidae*. Prag, Rozpr. Česká Ak. Frant. Jos., **11**, 1902, Nr. 35, (39, 2 Taf.).

Über die Morphologie der Körperringe und Geschlechtsanhänge bei Trichopteren. I. Deskript. Teil. Familien *Hydropsychidae*, *Mollanidae*, *Leptoceridae*, *Phryganeidae*, *Sericostomatidae*, *Limnophilidae*. II. Vergleich. Teil. (böhmisch) L.c. **12**, 1903, Nr. 43, (62, 2 Taf.).

## SPECIAL EXTERNAL CHARACTERS.

**Enderlein, Günther.** Die Copeogonathen des Indo-australischen Faunengebietes. Budapest, Ann. Hist.-Nat. Mus. Hung., **1**, 1903, (179-377, mit Taf. III-XIV. u. 12 Textfig.).

**Lauterborn, Robert.** Tracheenkiemen an den Beinen einer Perliden-Larve (*Taeniopteryx nebulosa* L.). Zool. Anz., Leipzig, **26**, 1903, (637-642).

**Needham, James G. and Antony, Maude.** The skewness of the thorax in the Odonata. New York, N.Y., J. Ent. Soc., **11**, 1903, (117-125, wit 1 pl.).

**Ulmer, Georg.** Ueber das Vorkommen von Krallen an den Beinen einiger Trichopterenpuppen. Allg. Zs. Ent., Neudamm, **8**, 1903, (261-265).

## ORGANS OF UNCERTAIN NATURE.

**Gross, J.** Ueber das Palmén'sche Organ der Ephemeriden. Zool. Jahrb., Jena, Abt. f. Anat., **19**, 1903, (91-106, mit 1 Taf.).

## 3811 PHYSIOLOGY.

## FUNCTION OF SPECIAL STRUCTURES.

**Martynov, Andrej.** Die Entstehung der peritrophen Hüllen bei den Larven der Trichopteren. (Russ.) Moskva, Dnev. Zool. Otd. Imp. Obsč. Hüb. jest., **III**, 5, 1903, (20-24, mit 1 Taf.) 35 cm.

## REGENERATION.

**Child, C. M. and Young, A. N.** Regeneration of the appendages in nymphs of the *Agrionidae*. Arch. EntwMech., Leipzig, **15**, 1903, (543-602, mit 3 Taf.).

## 3815 DEVELOPMENT.

## GENERAL.

**Clément, A. L.** Le criquet marbré. Nature, Paris, (1<sup>er</sup> sem.), **31**, 1903, (97-98, av. fig.).

**Higgins, Helen T.** The development and comparative structure of the gizzard in the Odonata Zygoptera. [Thesis . . . B.S. . . . University of Pennsylvania . . . 1900]. Philadelphia, Pa., Proc. Acad. Nat. Sci., **53**, 1901, (126-141, with pl.); [reprint], Philadelphia, Cont. Zool. Lab., Univ. Pa., **1901**, 1902, ([126]-141, with pl.).

**McGlendon, J. F.** The life history of *Ulula hyalina* Latreille. Austin, Cont. Zool. Lab. Univ. Tex., No. 27; Amer. Nat. Boston, Mass., 36, 1903, (421-429).

**Melander, Axel Leonard.** Notes on the structure and development of *Embia texana*. Wood's Holl, Mass., Mar. Biol. Lab. Bull., 4, 1903, (99-118).

**Needham, James G.** Life histories of Odonata, Suborder Zygoptera, Damselflies. Albany Univ., N.Y., Bull. St. Mus. No. 68, 1903, (218-276, with pl.).

## EMBRYOLOGY.

**Conklin, Edwin G[rant].** Amitosis in the egg follicle cells of the cricket [*Gryllus*]. [With bibliography.] Amer. Nat., Boston, Mass., 37, 1903, (667-675).

**Tschuprow, Helene.** Ueber die Entwicklung der Keimblätter bei den Libellen. (Vorläuf. Mitt.) Zool. Anz., Leipzig, 27, 1903, (29-34).

## METAMORPHOSIS AND LARVAL FORMS.

**Dobson, H. T.** Emergence of *Aeschna grandis*. Entomologist, London, 36, 1903, (253-254).

**McGlendon, J. F.** The larvae of *Myrmeleon texanus* Banks and *M. rusticus* Hagen. [Contributions from the Zoological laboratory of the University of Texas. No. 33.] Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (209-213, with 1 pl.).

**Martynov, Andrej.** Die Entstehung der peritrophen Hüllen bei den Larven der Trichopteren. (Russ.) Moskva, Dnev. Zool. Otd. Imp. Obsč. Kub. jest, III, 5, 1903, (20-24, mit 1 Taf.). 35 cm.

**Needham, James G.** Remarks on Hydroptilid larvae and their metamorphosis. Zool. Anz., Leipzig, 27, 1903, (108-110).

**Speiser, P[aul].** Kein neuer Typus von Hypermetamorphose! l.c. 26, 1903, (515-516).

**Struck, Rudolf.** Beiträge zur Kenntnis der Trichopterenlarven. Lübeck, Mitt. geogr. Ges., (2. Reihe), H. 17, 1903, (41-124, mit 7 Taf.).

(N 2-9033)

**Ulmer, Georg.** Beiträge zur Metamorphose der deutschen Trichopteren. [Forts.] Allg. Zs. Ent., Neudamm, 8, 1903, (11-15, 70-73, 90-93, 209-211, 315-316).

— Zur Trichopteren-Fauna von Thüringen und Harz. (Mit Beschreibung einiger neuer Metamorphose-Stadien.) l.c. (341-350).

— Weitere Beiträge zur Metamorphose der deutschen Trichopteren. Stettiner ent. Ztg., 64, 1903, (179-226, mit 3 Taf.).

— Deutsche Wasserinsekten und ihre Entwicklung. Aus d. Heimat, Stuttgart, 15, 1902, (33-48, 81-85).

## 3819 ETHOLOGY.

## GENERAL.

**Clément, A. L.** Le criquet marbré. Nature, Paris, (1<sup>er</sup> sem.), 31, 1903, (97-98, av. fig.).

**Froggatt, Walter W.** The white ant city, a nature study. Agric. Gaz., Sidney, N.S.W., 14, 1903, (726-730, 1 pl. and text figs.).

— Locusts and grasshoppers. Part I. l.c. (1102-1110, with 1 pl.).

**Krauss, Hermann A.** Beitrag zur Kenntniss der Orthopteren Deutsch-Südwestafrikas. Wien, Verh. ZoolBot. Ges., 51, 1901, (281-293).

**Marchal.** Les criquets en 1901. Autun, Bul. soc. sci. nat., 15, 1902, (Proc. verb. 28-30).

— Une remarquable éclosion d'Ephémères. l.c. (Proc. verb. 260-262).

**Morton, W.** Notes sur l'élevage des Phyllies. Lausanne, Bull. Soc. Sci. Nat., (sér. 4), 39, 1903, (401-407, av. 1 pl.); Arch. Sci. Phys., Genève, (sér. 4), 16, 1903, (748-750).

**Tepper, J. G. O.** . . . Described genera and species of the Australian and Polynesian *Phasmidae* or "spectre insects." Vict. Nat., Melbourne, 19, 1903, (138-142).

## HABITS.

**Caudell, A. N.** A greedy insect [Mantid]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (60).

**Heath, Harold.** The habits of California termites. Wood's Holl, Mass., Mar. Biol. Lab. Bull., 4, 1903, (47-63).



**Mariatt, C[harles] L[ester].** The white ant (*Termes flavipes* Koll.) [Revised reprint from Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent. (N. Ser.), No. 4, (70-76).] Washington, D.C., Cir. U. S. Dept. Agric. Div. Ent., (Ser. 2), No. 50, 1902, (8). 23.4 cm.

— Cockroaches. [*Periplaneta* and *Ectobia*.] [Revised reprint from Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. 4, (84-95).] Lc. No. 51, 1902, (15). 23.4 cm.

**Morgan, H. A.** The differential grasshopper [*Melanoplus differentialis*] in the Mississippi delta—other common species. Washington, D.C. Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. 30, 1901, (7-33).

**Shelford, R.** Bionomical notes on some Bornean *Mantidae*. Zoologist, London, (Ser. 4), 7, 1903, (293-304).

#### PARENTAL RELATIONS.

**Xambou.** Instinct de la maternité chez le *Chelidura dilatata* Lafresnaye, orthoptère du groupe des Forficulien. Naturaliste, Paris, (sér. 2), 25, 1903, (143-144).

#### SEXUAL RELATIONS.

**Rehn, J. A. G.** [Pairing of] *Schistocerca alutacea* and *rubiginosa*. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (89).

#### OVIPOSITION.

**Giard, A.** La ponte des Libellules du genre *Lestes*. Feuille jeunes natural., Paris, (sér. 4), 33, 1903, (189-192).

#### HABITAT.

**Silfvenius, A[ntti] J[ohannes].** Über im Wasser lebende Schmetterlinge und auf Land lebende Trichopteren. (Finnisch) Luonnon Ystävä, Helsingfors, 1903, 6-8, (125-128).

#### ENEMIES.

**Borgogno, C.** Un combat singulier. Moineau contre sauterelle verte. Nantes, Bul. soc. sci. nat., (sér. 2, 3), 13, 1903, (III).

**Calvert, Philip P.** [Spiders as enemies of dragonflies.] Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (161-162).

**Williamson, E. B.** Spiders as enemies of dragonflies. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (160-161).

#### DEFENSIVE PROCESSES.

**Burr.** [The use of earwig forceps.] Ent. Rec., London, 15, 1903, (262).

**Calvert.** [Resemblances in Odonata] (Neuroptera). Biol. Centr.-Amer., London, 1903, (134).

**Sajó, Karl.** Mimicry im Kreise der Wasserjungfern. Prometheus, Berlin, 14, 1903, (733-734).

**Vosseler, J[ulius].** Ueber einige Beobachtungen aus dem kleinasiatischen Insektenleben. Stuttgart, Jahreshfte Ver. Natk., 59, 1903, (1C).

**Williams, C. E.** Exhibition of living *Gongylus gongyloides*, a floral *Mantis*. Cambridge, Proc. Phil. Soc., 12, 1903, (279).

#### UTILITY AND HARMFULNESS.

**Enderlein, Günther.** Ein neuer Copeognathentypus, zugleich ein neuer deutscher Wohnungsschädling. Zool. Anz., Leipzig, 27, 1903, (76).

**Küster, Hermann.** Die Uebertragung bakterieller Infektionen durch Insekten. Centralbl. Bakt., Jena, Abt. 33, Referate, 1903, (90-94).

**Loir, A.** La destruction des termites. Paris, C.-R. Acad. sci., 136, 1903, (1290-1291).

**Ludwig, F[riederich].** Zwei neue Pflanzenschädlinge unserer Gewächshäuser und Gärten. [Japanische Heuschrecken u. Amseln.] Zs. Pflanzenkrankh., Stuttgart, 13, 1903, (210-213).

**Sander, L.** Die Wanderheuschrecken und ihre Bekämpfung in unseren afrikanischen Kolonien. Berlin, 1902, (544). [Review] by W. F. K., Nature, London, 67, (244).

**Stebbing, E. P.** Insect pests of the sugarcane in India. Calcutta, Ind. Mus. Notes, 5, 1903, (64-91).

3823 VARIATION AND  
ÆTIOLOGY.

## GENERAL.

**Calvert**, Philip P. Variation in *Hetaerina titia* Drury (Odonata). Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (192-193).

**Needham**, James G. and **Antony**, Maude H. The skewness of the thorax in the Odonata. New York, N.Y., J. Ent. Soc., **11**, 1903, (117-125, with 1 pl.).

## SUBSTANTIVE VARIATION.

**Euglion**, E. Observation relative à un cas de mimétisme. (*Blepharismendica*). Lausanne, Bul. Soc. Sci. Nat., (sér. 4), **39**, 1903, (385-388, av. 1 pl.); Arch. Sci. Phys., Genève, (sér. 4), **16**, 1903, (342-343).

**Burr**, M. Wingless *Forficula auricularia*. Ent. Rec., London, **15**, 1903, (251).

## CROSSES AND HYBRIDS.

**Williamson**, E. B. A hybrid dragon-fly of the genus *Gomphus* (Odonata). Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (253-258, with 1 pl.).

## EVOLUTION.

**Needham**, James G. A genealogic study of dragon-fly wing venation. Thesis . . . Ph. D. . . . Cornell. Washington, D.C., Smithsonian Inst., Nation. Mus. Proc., **26**, 1903, (703-764, with 24 pls.). Separate. 24.3 cm.

3827 GEOGRAPHICAL  
DISTRIBUTION.

## b LAND AS A WHOLE.

**Eis**, F. Vorweisung europäischer und amerikanischer Libellen. Schaffhausen, Mitt. Schweiz. Entomol. Ges., **10**, 1903, (436-443).

(n 2-9053)

## d EUROPE.

**Burr**, M. Synopsis of the Orthoptera of W. Europe. Ent. Rec., London, **15**, 1903, (314-319, (still incomplete)).

**Enderlein**, Günther. Zur Kenntnis europäischer Psociden. Zool. Jahrb., Jena, Abt. f. Syst., **18**, 1903, (366-382, mit Taf.).

## da SCANDINAVIA.

**Borg**, Hjalmar. Annotations on Swedish Neuroptera. (Swedish) Entomol. Tidskr., Stockholm, **22**, 1901, (175-176).

**Eaton**, A. E. A new species of *Ephemeridae* from Norway. Ent. Mag., London, **39**, 1903, (30).

**Kempny**, Peter. Nachtrag zur Perliden-Fauna Norwegens. Wien, Verh. ZoolBot. Ges., **51**, 1901, (788-791).

**McLachlan**, R. Neuroptera (in the Linnean sense) collected by the Rev. A. E. Eaton in South Norway in July, 1902, with synonymic and other notes. Ent. Mag., London, **39**, 1903, (32-35).

**Strand**, Embr. Trichoptera and Neuroptera-Planipennia collected in Norway. (Norw.) Entomol. Tidskr., Stockholm, **22**, 1901, (93-96).

**Westerlund**, John Agardh. Pseudoneuroptera in the neighbourhood of Ronneby, (South Sweden). (Swedish) l.c. (137-142).

## db RUSSIA IN EUROPE.

**Brauner**, A. Notices sur divers Odonates. (Russ.) Rev. Russ. Ent., Jaroslavl, **3**, 1903, (89-91).

**Hindse**, B. K. Zur Orthopterenfauna des Gouvernements Ufa. (Russ.) Moskva, Trd. kruž. izsl. russ. prir., **1**, 1903, (107-110).

**Jacobson**, C. G. and **Bianchi**, V. L. Orthoptera and Pseudoneuroptera des russischen Reiches und der angrenzenden Gebiete nach Dr. R. Tümpel's Die Geradflügler Mitteleuropas. (Russ.) Lief. V. St. Petersburg, 1903, (353-432, mit Taf. 18-21).

**Kuznetsov, N. I.** Excursions d'été, en 1902, sur la côte sud de la Crimée. (Russ.) Rev. Russ. Ent., Jaroslavl, 3, 1903, (5-7).

**Semenov, A. P.** Notices sur les Dermaptères de la faune de la Russie I. (Russ.) Rev. Russ. Ent., Jaroslavl, 3, 1903, (196-199).

**Silantjev, A. A.** Capture d'un termite au Caucase. (Russ.) l.c. (29).

**dc GERMAN EMPIRE.**

**Fröhlich, Carl.** Die Odonaten und Orthopteren Deutschlands mit besonderer Berücksichtigung der bei Aschaffenburg vorkommenden Arten, nach der analyt. Methode beab. IV. Mitteilung des naturwissenschaftlichen Vereins zu Aschaffenburg, hrsg. zur Feier seines 25-jährigen Bestehens. Jena (G. Fischer), 1903, (VI + 106, mit 6 Taf.). 23 cm. 4 M.

**Ulmer, Georg.** Zur Trichopteren-Fauna von Thüringen und Harz. (Mit Beschreibung einiger neuer Metamorphose-Stadien.) Allg. Zs. Ent., Neudamm, 8, 1903, (341-350).

——— Zur Trichopteren-Fauna von Hessen. l.c. (397-406).

**de BRITISH ISLANDS.**

**Brown, H. H.** Butterflies and dragonflies in Banffshire. Ann. Scot. Nat. Hist., Edinburgh, 1903, (247).

**Burr, E.** Orthoptera in the Isle of Wight. Ent. Rec., London, 15, 1903, (254-257).

**df FRANCE.**

**Gentil.** Note sur la présence du *Bacillus gallicus* Charp. au Mans. Mans (le), Bul. soc. agricult. sci., (sér. 5), 30, 1901-1902, (425-426).

**dg SPAIN.**

**McLachlan, R.** An annotated list of Odonata collected in West Central Spain, by Dr. T. A. Chapman and Mr. G. C. Champion in June and July, 1902. Ent. Mag., London, 39, 1903, (7-9).

**dh ITALY.**

**Elis, F.** Trichopteren des Cantons Tessin and angrenzender Gebiete. Schaffhausen, Mitt. Schweiz. Entomol. Ges., 11, 1903, (5-18, mit 1 pl.).

**di SWITZERLAND.**

**Elis, F.** Die schweizerischen Arten der Perliden-Gattung *Nemura*. Schaffhausen, Mitt. Schweiz. Entomol. Ges., 10, 1902, (378-405, mit 6 Taf.).

——— Trichopteren des Cantons Tessin and angrenzender Gebiete. l.c. 11, 1903, (5-18, mit 1 pl.).

**dk AUSTRIA-HUNGARY.**

**Krejčí, A.** Nachträge zur „Übersicht der Cölmischen Orthopteren“ v. T. 1896. Prag, SitzBer. Ges. Wiss., 1903, Nr. 23, (2).

**Werner, Franz.** Die Orthopteren-fauna von Pernitz. (Piestingthal, N. Oe.). Wien, JahrBer. Entom. Ver., 11, (1900), 1901, (103-108).

**e ASIA.**

**de Saussure, Henri.** Analecta Entomologica II. Notice sur la tribu des Eumastaciens. Rev. Suisse Zool., Genève, 11, 1903, (43-112, 1 pl.).

**ea ASIATIC RUSSIA.**

**Semenov, A. P.** Notices sur les Dermaptères de la faune de la Russie. I. (Russ.) Rev. Russ. Ent., Jaroslavl, 3, 1903, (196-199).

**eb CHINA.**

**Rehn, James A. G.** Contributions toward a knowledge of the Orthoptera of Japan and Korea, I *Acerididae*. Philadelphia, Pa., Proc. Acad. Nat. Sci., 54, 1902, [1903], (629-637).

**ec JAPANESE ISLANDS.**

**Namiye, [Motoyoshi].** Odonata of Prov. Tosa. (Japanese) Dobuts. Z., Tokyo, 15, 1903, (297).

**Rehn, James A. G.** Contributions toward a knowledge of the Orthoptera of Japan and Korea. I *Acrididae*. Philadelphia, Pa., Proc. Acad. Nat. Sci., **54**, 1902, [1903], (629-637).

**ef** BRITISH INDIA.

**Enderlein, Günther.** Die Copeognathen des indo-australischen Faunengebietes. Budapest, Ann. Hist.-Nat. Mus. Hung., **1**, 1903, (179-344, mit Taf., III-XIV u. 12 text fig.).

**eg** MALAY PENINSULA.

**Enderlein, Günther.** Die Copeognathen des indo-australischen Faunengebietes. Budapest, Ann. Hist.-Nat. Mus. Hung., **1**, 1903, (179-344, mit Taf., III-XIV and 12 text fig.).

**Krauss, Hermann August.** Orthopteren aus Australien und dem malayischen Archipel, gesammelt von Professor Dr. Richard Semon. Jena, Denkschr. med. Ges., **8**, 1903, (743-770, mit. 1 Taf.).

**Laidlaw, F. F.** Odonata. Part I [in] Fascic. Malay, Zool., **1**, (185-200). Includes some notes by Dr. F. Förster.

**Shelford, R.** Bionomical notes on some Bornean *Mantidae*. Zoologist, London, (Ser. 4), **7**, 1903, (293-304).

**eh** PERSIA.

**Semenov, A. P.** Les Dermapoptères du voyage de N. A. Zarudny dans la Perse orientale en 1900-1901. (Russ.) St. Petersburg, Hor. Soc. Ent. Ross., **36**, 1902, (192-198).

**f** AFRICA.

**de Saussure, Henri.** Analecta Entomologica. II. Notice sur la tribu des Eumastaciens. Rev. Suisse Zool., Genève, **11**, 1903, (43-112, 1 pl.).

**fb** NORTH EAST AFRICA.

**Adelung, N. N.** Blattodées (Orthoptères), rapportées par Mr. le cap. G. W. Kachowski de l'Abyssinie méridionale

et des contrées limitrophes en 1898. St. Petersburg, Ann. Mus. zool. Ac. Sc., **8**, 1903, (300-337, Taf. XX).

**fd** WEST AFRICA.

**Enderlein, Günther.** Neue Copeognathen aus Kamerun. Zool. Jahrb., Jena, Abt. f. Syst., **19**, 1903, (1-8, mit 1 Taf.).

**ff** EAST AFRICA.

**Burr, M.** Orthoptera . . . Nat. Hist. Sokotra, (411-426, pl. XXV).

**Forbes, H. O.** Pseudoneuroptera. l.c. (397).

**Grünberg.** Neue Odonaten aus dem Njassa-Gebiet, gesammelt von Dr. Fülleborn. Berlin, SitzBer. Ges. natf. Freunde, **1902**, (230-237).

——— Zur Kenntniss der Odonatenfauna des ost-afrikanischen Seengebietes. Ergebnisse der Nyassa-See- und Kinga-Gebirgs-Expedition der Hermann und Elise geb. Heckmann-Weentzel-Stiftung. Zool. Jahrb., Jena, Abt. f. Syst., **18**, 1903, (695-726).

**Kirby, W. F.** Planipennia. Nat. Hist. Sokotra, (404-405).

**McLachlan, R.** Amphibiotica. l.c. (398-403, pls. XXIV, XXIVa).

**fg** SOUTH AFRICA.

**Krauss, Hermann A.** Beitrag zur Kenntniss der Orthopteren Deutsch-Südwestafrikas. Wien, Verh. ZoolBot. Ges., **51**, 1901, (281-293).

**g** NORTH AMERICA.

**Banks, Nathan.** A revision of the Nearctic *Chrysopidae* [with bibliography]. Philadelphia, Pa., Acad. Nat. Sci. Trans. Amer. Ent. Soc., **29**, 1903, (137-162, with pl.).

**Davis, K. C.** *Sialididae* of North and South America [with bibliography]. Albany, Univ. N.Y., Bull. St. Mus., No. **68**, 1903, (442-499, with pl.).

**Enderlein, Günther.** Zur Kenntniss americanischer Psociden. Zool. Jahrb., Jena, Abt. f. Syst., **18**, 1903, (351-364, mit 2 Taf.).

**Behn, James A. G.** Studies in American *Blattidae*. Philadelphia, Pa., Acad. Nat. Sci. Trans. Amer. Ent. Soc. **29**, 1903, (259-290).

*gd* CANADIAN DOMINION EAST.

**Williamson, E. B.** Dragonflies (Odonata) from the Magdalen islands. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (144-146).

*gf* UNITED STATES.

**Caudell, Andrew Nelson.** The *Phasmidae* or walking sticks of the United States. Washington, D.C., Smithsonian Inst., Nation. Mus. Proc., **26**, 1903, (803-885, with 4 pls.) Separate, 24.3 cm.

**Behn, James A. G.** Two new species of N. American Stenopelmatinae. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (240-241).

*gg* NORTH EASTERN UNITED STATES.

**Berry, Edward W.** New or hitherto unknown Ephemerid nymphs of the eastern United States [New Jersey]. Amer. Nat., Boston, Mass., **37**, 1903, (25-31).

**Blatchley, W[illie] S[tanley].** The Orthoptera of Indiana. An illustrated descriptive catalogue of the species known to occur in the State, with bibliography, synonymy, and descriptions of new species. Indiana, Rep. Dept. Geol. Nat. Res. Indianapolis, **27**, 1902, [1903], (123-471, with pl.).

**Calvert, P[hilip] P[owell].** Distribution of New York dragon flies [Odonata], additional data. Albany Univ., N.Y., Bull. St. Mus., No. **68**, 1903, (276-279).

— Additions to the Odonata of New Jersey, with descriptions of two new species. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, ([33]-41, with 1 pl.).

— [*Lestes eurinus* Say to be added to New Jersey list of Odonata.] l.c. (158).

**Graf, J. L.** Additions to the above list [with a list of the dragonflies observed in western Pennsylvania, by E. B. Williamson]. l.c. **13**, 1902, (113-114).

**Needham, James G.** Odonata of New Jersey. [*Hagenia brevistylus*]. l.c. **14**, 1903, (159).

**Behn, James A. G.** Notes on some interesting species of *Forficulidae* and *Blattidae* from the eastern United States. l.c. (125-126).

— Records of New Jersey and Pennsylvania Orthoptera. l.c. **13**, 1902, (309-316).

**Wadsworth, Mattie.** Sixth addition to the list of dragon flies (Odonata) of Manchester, Kennebec County, Maine. l.c. (246-247).

**Williamson, E. B.** A list of the dragonflies observed in western Pennsylvania [with additions to the above list, by J. L. Graf]. l.c. (65-71, 108-114, with pl.).

*gh* SOUTH EASTERN UNITED STATES.

**Beutenmüller, William.** A new katydid [*Cyrtophyllus floridensis* n. sp.] from Florida. New York, N.Y., Bull. Amer. Mus. Nat. Hist., **19**, 1903, (637-638). Separate. 24.5 cm.

**Brimley, C. S.** List of dragonflies (Odonata) from North Carolina, especially from the vicinity of Raleigh. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (150-157).

— *Telagrion daeckii* (Odonata) at Raleigh, North Carolina. l.c. (335-336).

**Calvert, Philip P.** [Note on Maryland Odonata, with paper by F. Ris]. l.c. (219-220).

**Morgan, H. A.** The differential grasshopper [*Melanoplus differentialis*] in the Mississippi delta—other common species. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **30**, 1901, (7-33).

**Behn, James A. G.** A new *Aptenopodes* from Florida. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (14).

— Notes on some interesting species of *Forficulidae* and *Blattidae* from the eastern United States. l.c. **14**, 1903, (125-126).

— A new roach of the genus *Ischnoptera* from Florida. l.c. **14**, 1903, (233-234).

**Ris, F.** Note on a small collection of dragonflies (Odonata) from Baltimore, Maryland, [with note by Philip P. Calvert]. *Ic.* **14**, 1903, (216-220).

**Williamson, E. B.** The dragonflies (Odonata) of Tennessee, with a few records for Virginia and Alabama. *Ic.* **14**, 1903, (221-229).

#### gi WESTERN UNITED STATES.

**Banks, Nathan.** Neuropteroid insects from Arizona. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (237-245, with pl.).

**Brunner, Lawrence.** Grasshopper notes for 1901. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **38**, 1902, (39-49).

**Calvert, P[hilip] P[owell].** Neuroptera-Odonata [from Beulah, New Mexico]. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1902, (42-43).

**Caudell, A[ndrew] N[elson].** Some new or unrecorded Orthoptera from Arizona. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (162-166).

Notes on Orthoptera from Colorado, New Mexico, Arizona, and Texas, with descriptions of new species. Washington, D.C., Smithsonian Inst., Nation. Mus. Proc., **26**, 1903, (775-809, with 1 pl.). Separate. 24 cm.

**Currie, Rolla P.** *Myrmeleonidae* from Arizona. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (272-284).

The Odonata collected by Messrs. Schwarz and Barber in Arizona and New Mexico. *Ic.* (298-303).

**Heath, Harold.** The habits of California termites. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **4**, 1903, (47-63).

**Hoag, M. E.** [*Leistes uncatius* Kirby in Iowa.] Philadelphia, Pa., Ent. News Acad. Nat. Sci., Amer. Ent. Soc., **13**, 1902, (88-89).

**Morgan, H. A.** The differential grasshopper [*Melanoplus differentialis*] in the Mississippi delta—other common species. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **30**, 1901, (7-33).

**Rehn, J[ames] A. G.** Orthoptera [from Beulah, New Mexico]. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1902, (41-42).

Notes on the Orthoptera of New Mexico and Western Texas. Philadelphia, Pa., Proc. Acad. Nat. Sci., **54**, 1902, [1903], (717-727).

Notes and remarks on North American *Blattidae*, *Mantidae* and *Phasmidae*, with a catalogue of the *Forficulidae*, *Blattidae*, *Mantidae* and *Phasmidae* recorded from Texas. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (325-331).

**Woodworth, C. W.** Grasshoppers in California. Agric. Exp. Sta., California, Berkeley, Bull. No. **142**, 1902, (36, with 17 figs.). 23 cm. [Review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., **14**, 1903, (471-472).

#### h CENTRAL AND SOUTH AMERICA.

**Calvert, Philip P[owell].** On some American *Gomphinae*. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (183-192, with 1 pl.).

**Davis, K. C.** *Sialididae* of North and South America [with bibliography]. Albany Univ., N.Y., Bull. St. Mus., No. **66**, 1903, (442-499, with pl.).

**Förster, F.** Neotropische Libellen. Insektenbörse, Leipzig, **20**, 1903, (355-356).

**Rehn, James A. G.** Studies in American *Blattidae*. Philadelphia, Pa., Acad. Nat. Sci. Trans. Amer. Ent. Soc., **29**, 1903, (259-290).

#### lb CENTRAL AMERICA.

**Rehn, James A. G.** On two earwigs of the genus *Labia* from Costa Rica. Philadelphia, Pa., Ent. News Acad. Nat. Sci., Amer. Ent. Soc., **14**, 1903, (292-293).

#### hc WEST INDIAN ISLANDS.

**Rehn, James A. G.** Notes on West Indian Orthoptera, with a list of the species known from the island of Porto Rico. Philadelphia, Pa., Acad. Nat. Sci. Trans. Amer. Ent. Soc., **29**, 1903, (29-136).

## hh BRAZIL.

**Needham**, James G. A new genus and species of dragon-fly [*Cyanocharis valga* n. gen. and sp.] from Brazil. Washington, D.C., Proc. Biol. Soc., **16**, 1903, (55-58). Separate 23.3 cm.

**Weele**, H. W. van der. New genus and species of Holophthalmous *Ascalaphidae*. Leiden, Notes Mus. Jentink, **23**, 1903, (234-236).

## hi ARGENTINA.

**Mathon** . . . Acridiens de l'Argentine. Arch. Sci. Phys., Genève, (sér. 4), **15**, 1903, (571).

## i AUSTRALASIA.

**Enderlein**, Günther. Die Copeognathen des indo-australischen Faunengebietes. Budapest, Ann. Hist. Nat. Mus. Nat. Hung., **1**, 1903, (179-344, mit Taf. III-XIV und 12 Tex. fig.).

**Krauss**, Hermann August. Orthopteren aus Australien und dem malayischen Archipel, gesammelt von Professor Dr. Richard Semon. Jena, Denkschr. med. Ges., **8**, 1903, (743-770, mit 1 Taf.).

**Tepper**, J. G. O. Notes and remarks on the described genera and species of the Australian and Polynesian *Phasmidae* or "spectre insects." Vict. Nat., Melbourne, **19**, 1903, (138-142).

## ia NEW GUINEA AND ISLANDS.

**Bolívar**, Ignacio. Contributions à l'étude des Mecopodinae. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., **1**, 1903, (167-178).

**Fürster**, F. Odonaten aus Neu-Guinea. Lc. (508-554).

## k ARCTIC.

**Banks**, Nathan. A revision of the Nearctic *Chrysopidae*. [with bibliography]. Philadelphia, Pa., Acad. Nat. Sci. Trans. Amer. Ent. Soc., **29**, 1903, (137-162, with pl.).

## l ATLANTIC.

## la NORTH ATLANTIC OCEAN.

**Candell**, A. N. Notes on the Orthoptera of Bermuda, with the description of a new species [*Gryllus bermudensis* n. sp.]. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (329-331).

## m INDIAN OCEAN.

## ma OCEAN AND ISLANDS N. OF EQUATOR.

**Burr**. Orthoptera,—Fauna of the Maldives and Laccadive Islands, **1**, (234-236).

## n PACIFIC.

**Tepper**, J. G. O. Notes and remarks on the described genera and species of the Australian and Polynesian *Phasmidae* or "spectre insects." Vict. Nat., Melbourne, **19**, 1903, (138-142).

## ng GALAPAGOS ISLANDS.

**Snodgrass**, Robert Evans. Papers from the Hopkins Stanford Galapagos expedition, 1898-1899, VIII. Entomological results (7). *Schistocerca*, *Sphingonotus* and *Halmenus*. Washington, D.C., Proc. Acad. Sci., **4**, 1902, (411-454, with 2 pl.). Separate. 24.5 cm.

## 3831 TAXONOMY AND SYSTEMATIC.

## GENERAL.

**Sainte-Claire Deville**, J. Exploration entomologique des grottes des Alpes-Maritimes. Ann. soc. ent., Paris, **71**, 1902, [1903], (695-709, av. fig.).

## ORTHOPTERA.

**Blatchley**, W. S. The Orthoptera of Indiana. An illustrated descriptive catalogue of the species known to occur in the state, with bibliography, synonymy, and descriptions of new species. Indiana, Rep. Dept. Geol. Nat. Res., Indianapolis, **27** 1902, [1903], (123-471, with pl.).

**Borgogno, C.** Un combat singulier. Moineau contre sauterelle verte. Nantes, Bul. soc. sci. nat., (sér. 2, 3), 13, 1903, (III).

**Burr, M.** Synopsis of the Orthoptera of W. Europe. Ent. Rec., London, 15, 1903, (314-319, still incomplete).

——— Orthoptera. Nat. Hist. Sokotra, (411-426, pl. XXV).

——— Orthoptera. — Fauna of the Maldive and Laccadive Islands, 1, (234-236).

**Caudell, A. N.** Notes on Orthoptera from Colorado, New Mexico, Arizona, and Texas, with descriptions of new species. Washington, D.C., Smithsonian Inst., Nation. Mus. Proc., 26, 1903, (775-809, with 1 pl.). Separate. 24 cm.

——— Some new or unrecorded Orthoptera from Arizona. Washington, D.C., Proc. Ent. Soc., 5, 1903, (162-166).

——— Notes on the Orthoptera of Bermuda, with the description of a new species. *I. c.* (329-331).

**Frühlich, C.** Die Odonaten und Orthopteren Deutschlands mit besonderer Berücksichtigung der bei Aschaffenburg vorkommenden Arten, nach der analyt. Methode beab. IV Mittheilung des naturwissenschaftlichen Vereins zu Aschaffenburg, hrg. zur Feier seines 25-jährigen Bestehens. Jena (G. Fischer), 1903, (VI + 106, mit 6 Taf.). 23 cm. 4 M.

**Krauss, H. A.** Orthopteren aus Australien und dem malayischen Archipel, gesammelt von Professor Dr. Richard Semon. Jena, Denkschr. med. Ges., 8, 1903, (743-770, mit 1 Taf.).

**Pierantoni, U.** Orthoptera; nuovo contributo alla conoscenza del [loro] sistema nervoso stomatogastrico. Napoli, Boll. Soc. nat., 15, (1901), 1902, (54-60, con tav.).

**Rehn, J. A. G.** Records of New Jersey and Pennsylvania Orthoptera. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (309-316).

——— Notes and remarks on North American *Blattidae*, *Mantidae* and *Phasmidae*, with a catalogue of the *Forficulidae*, *Blattidae*, *Mantidae* and *Phasmidae* recorded from Texas. *I. c.* 14, 1903, (325-331).

**Rehn, J. A. G.** Notes on West Indian Orthoptera, with a list of the species known from the island of Porto Rico. Philadelphia, Pa., Acad. Nat. Sci. Trans. Amer. Ent. Soc., 29, 1903, (29-136).

——— Orthoptera [from Beulah, New Mexico]. *I. c.* (41-42).

——— Notes on the Orthoptera of New Mexico and western Texas. Philadelphia, Pa., Proc. Acad. Nat. Sci., 54, 1902 [1903], (717-727).

**Woodworth, C. W.** Grasshoppers in California. Agric. Exp. Sta., California, Berkeley, Bull. No. 142, 1902, (36 with 17 fig.). 23 cm. [Review]. Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., 14, 1903, (471-472).

## FORFICULIDAE.

### GENERAL.

**Rehn, J. A. G.** Notes on some interesting species of *Forficulidae* from the eastern United States. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (125-126).

——— Studies in American *Forficulidae*. Philadelphia, Pa., Proc. Acad. Nat. Sci., 55, 1903, (299-312).

**Semenov, A. P.** Notices sur les Dermapoptères de la faune de la Russie I. (Russ.) Rev. Russ. Ent., Jaroslavl, 3, 1903, (196-199).

### SPECIAL.

*Ancistrogaster burri* n. nom. for *A. luctuosa* De Bormans. Mexico and Central America. Kirby, W. F. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (68).

——— *javanus* n. sp. Java. de Bormans in Burr, M. *I. c.* (266-267).

*Anisolabis dubronii* n. nom. for *A. lacta* De Borm. Kirby, W. F. *I. c.* (68).

——— description. Burma. Burr, M. *I. c.* (270-272).

——— ? *incerta* n. sp. de Bormans, A. in Burr, M. *I. c.* (234).

*Apterygida buscki* n. sp. Porto Rico. Rehn, J. A. G. Philadelphia, Pa., Acad. Nat. Sci. Trans. Amer. Ent. Soc., 29, 1903, (129).



*Carcinophora boliviana* n. sp. Bolivia. **de Bormans** in **Burr**, M. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (233-234).

*Chelidura dilatata*, instinct de la maternité. **Xambeu**. Naturaliste, Paris, (ser. 2), 25, 1903, (143-144).

———— *peringueyi* n. sp. Cape of Good Hope. **Burr**, M. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (275-277).

*Chelisoches* nn. spp. Celebes. **de Bormans** in **Burr**, M. l.c. (265-266).

———— *vittatus* n. sp. West Africa. **Burr**, M. l.c. (274-275).

*Ctenisolabis togoensis* n. sp. **Verhoeff**, K. W. Berlin, SitzBer. Ges. natf. Freunde, 1902, (7-18).

*Diplatys ridleyi* n. sp. Singapore. **Kirby**, W. F. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (61).

*Echinopsalis brevibractea* n. sp. America. **Rehn**, J. A. G. Philadelphia, Pa., Proc. Acad. Nat. Sci., 55, 1903, (300).

*Forficula* nn. spp. Caucasus centr. et Rossia merid. **Semenov**, A. Rev. Russ. Ent., Jaroslavl, 3, 1903, (19-21).

———— *auricularia*. **Brockhausen**, H. Münster, Jahresber., ProvVer. Wiss., 29, (1900/01), 1901, (31-32).

———— **Burr**. Ent. Rec., London, 15, 1903, (254).

———— *metrica* n. sp. America. **Rehn**, J. A. G. Philadelphia, Pa., Proc. Acad. Nat. Sci., 55, 1903, (311).

———— *miranda* n. sp. **de Bormans** in **Burr**, M. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (269-270).

*Gonolabina* n. gen., *G. kuhlgatzii* n. sp. **Verhoeff**, K. W. Berlin, SitzBer. Ges. natf. Freunde, 1902, (7-18).

*Gonolabis inca* n. sp. Peru. **Burr**, E. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (272-273).

*Isolabella* n. gen., *I. graeca* n. sp. **Verhoeff**, K. W. Berlin, SitzBer. Ges. natf. Freunde, 1902, (15).

*Isolabis* n. gen., *I. braueri* n. sp. **Verhoeff**, K. W. l.c. (11, 14).

*Labia* nn. spp. **de Bormans** in **Burr**, M. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (235-241).

———— *auricoma* n. sp. Costa Rica. **Rehn**, J. A. G. Philadelphia, Pa., Ent. News Acad. Nat. Sci., Amer. Ent. Soc., 14, 1903, (292-293).

———— *canaca* n. sp. Noumea. **Burr**, M. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (273-274).

———— *flaviscuta* n. sp. America. **Rehn**, J. A. G. Philadelphia, Pa., Proc. Acad. Nat. Sci., 55, 1903, (305).

*Labidura truncata* n. sp. Australia. **Kirby**, W. F. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (67-68).

*Leptisolabis* n. gen., *L. usambarana*, *L. theorias* nn. spp. **Verhoeff**, K. W. Berlin, SitzBer. Ges. natf. Freunde, 1902, (12, 13).

*Opisthocosmia (Sarcinatrix) anomalia* n. sp. America. **Rehn**, J. A. G. Philadelphia, Pa., Proc. Acad. Nat. Sci., 55, 1903, (308).

———— *burri* n. sp. Celebes. **de Bormans** in **Burr**, M. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (267).

*Psalis pulchra* n. sp. America. **Rehn**, J. A. G. Philadelphia, Pa., Proc. Acad. Nat. Sci., 55, 1903, (303).

*Pygidierana* nn. spp. **Kirby**, W. F. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (61-63).

———— nn. spp. **de Bormans**, A. in **Burr**, M. l.c. (232-233).

*Sarcinatrix* n. subgen. (*Opisthocosmia*). **Rehn**, J. A. G. Philadelphia, Pa., Proc. Acad. Nat. Sci., 55, 1903, (308).

*Sparatta aculeata* n. sp. Celebes. **de Bormans** in **Burr**, M. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (265).

———— *dohrni* n. nom. for *S. plana*, **Dohrn** and **De Borm.** **Kirby**, W. F. l.c. (68).

———— *flavipennula* n. sp. America. **Rehn**, J. A. G. Philadelphia, Pa., Proc. Acad. Nat. Sci., 55, 1903, (299-312).

*Sphingolabis brunneri* n. sp. S. America. **de Bormans**, A. in **Burr**, M. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (268-269).

*Sphongiphora leicisi* n. sp. Japan.  
de Bormans, A in Burr, M. l.c. (234-235).

## HEMIMERIDAE.

## GENERAL.

Poche, F. Entgegnung [betr. Krauss' Bearbeitung der Hemimeriden]. Zool. Anz., Leipzig, 26, 1903, (229-230).

## SPECIAL.

*Hemimerus*, verwandtschaftliche Stellung. Verhoeff, K. W. Berlin, Sitz-Ber. Ges. natf. Freunde, 1902, (87-89).

## BLATTIDAE.

## GENERAL.

Adelung, N. N. Blattodées rapportées par Mr. le cap. Kochovski de l'Abyssinie mér. et des contrées limitrophes en 1898. St. Petersburg, Ann. Mus. zool. Ac. Sc., 8, 1903, (300-337, Taf. XX).

Caudell, A. N. Notes on the nomenclature of *Blattidae*. Washington, D.C., Proc. Ent. Soc., 5, 1903, (232-235).

Rehn, J. A. G. Studies in American *Blattidae*. Philadelphia, Pa., Acad. Nat. Sci. Trans. Amer. Ent. Soc., 29, 1903, (259-290).

Notes on some interesting species of . . . *Blattidae* from the eastern United States. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (125-126).

Sellards, E. H. Some new structural characters of Paleozoic cockroaches. Amer. J. Sci., New Haven, Conn., (Ser. 4), 15, 1903, (307-315, with 2 pls.).

## SPECIAL.

*Archimandrita tessellata* n. sp. Rehn, J. A. G. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., 29, 1903, (287).

*Archoblattina*† n. nom. (= *Megablattina* Sellards, not Brogniart). Sellards, E. H. Amer. J. Sci., New Haven, Conn., (Ser. 4), 15, 1903, (488).

*Arenivaga* n. subg. (*Homoeogamia*). Rehn, J. A. G. Philadelphia, Pa., Proc. Acad. Nat. Sci., 55, 1903, (181).

*Blaberus distantis* n. sp. Kirby, W. F. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (404-405).

*Blatta* Linnaeus = *Stylopyga* Fischer v. Wald. Rehn, J. A. G. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (101-102).

nn. spp. Australia. Krauss, H. A. Jena, Denkschr. med. Ges., 8, 1903, (743-770, 1 Taf.).

*bruneri* n. sp. Australia. Kirby, W. F. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (375).

*Blattella* nn. spp. Rehn, J. A. G. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., 29, 1903, (267-269).

*Calolampra* nn. spp. Rehn, J. A. G. l.c. (274-275).

*tepperi* n. sp. S. Australia. Kirby, W. F. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (275).

*Catara minor* n. sp. Australia. Krauss, H. A. Jena, Denkschr. med. Ges., 8, 1903, (743-770, 1 Taf.).

*Corydia* nn. spp. China. Kirby, W. F. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (406).

*Derocalymma stigmata* n. sp. Deutsch Südwest Afrika. Krauss, H. A. Wien, Verh. ZoolBot. Ges., 51, 1901, (282).

*Deropeltis* nn. spp. l'Abyssinie. Adelung, N. N. St. Petersburg, Ann. Mus. zool. Ac. Sc., 8, 1903, (300-337, Taf. XX).

*Dicellonotus* nn. spp. India. Kirby, W. F. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (409-410).

*Duryodana* n. gen. for *Blatta palpalis* Walk. Kirby, W. F. l.c. 12, 1903, (274).

*Dyscologamia cesticulata* Sauss., description of species. Singapore. Kirby, W. F. l.c. 11, 1903, (406-407).

*Ectobia*, habits. Marlatt, C. I. Revised reprint from Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.) No. 4, (84-95); Washington, D.C., Cir. U. S. Dept. Agric. Div. Ent., (Ser. 2), No. 51, 1902, (15).

*Epilampra* nn. spp. **Rehn**, J. A. G. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (272-273).

*Eremoblatta* n. subgen. (*Homoeogamia*). **Rehn**, J. A. G. Philadelphia, Pa., Proc. Acad. Nat. Sci., **55**, 1903, (181).

*Hedaia* nn. spp. Tonkin, Khasia Hills. **Kirby**, W. F. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (279-280).

*Heterolampra* n. gen., type, *Epilampra dilatata*, *H. staeli* (= *puncticollis* Stål), Philippines, *saussurei* (= *puncticollis* Sauss.), China, *monticola*, *pallida*, Tonkin, *ridleyi* Singapore, nn. spp. **Kirby**, W. F. l.c. (276-277).

*Heteroplana* n. gen., *H. thomsoni* n. sp. Louisiana Archipelago. **Kirby**, W. F. l.c. **11**, 1903, (415).

*Homalopteryx templetonii* n. sp. Ceylon. **Kirby**, W. F. l.c. **12**, 1903, (275).

*Homoeogamia*, revision of the spp. **Rehn**, J. A. G. Philadelphia, Pa., Proc. Acad. Nat. Sci., **55**, 1903, (177-192).

*Ischnoptera intricata* n. sp. Indiana. **Hatchley**, W. S. Indiana, Rep. Dept. Geol. Nat. Res. Indianapolis, **27**, 1902, [1903], (123-471, with pl.).

— *jamaicana* n. sp. **Rehn**, J. A. G. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (284).

— *johnsoni* n. sp. **Rehn**, J. A. G. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (233-234).

*Kakerlae* Latreille = *Loboptera* Brunner. **Rehn**, J. A. G. l.c. **13**, 1902, (101-102).

*Latindia schwarzi* n. sp. Arizona. **Candell**, A. N. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (162-166).

*Leucophaea striata* n. sp. Selangor. **Kirby**, W. F. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (378).

*Mallatoblatta brachyptera* n. sp. Abyssinie. **Adelung**, N. N. St. Petersburg, Ann. Mus. zool. Ac. Sc., **8**, 1903, (300-337, Taf. XX).

*Megablattina* n. gen., *M. beecheri*† n. sp. Illinois, Carboniferous. **Sellards**, E. H. Amer. J. Sci., New Haven, Conn., (Ser. 4), **15**, 1903, (307-315).

*Melanozosteria bicolor* n. sp. Torres Straits. **Kirby**, W. F. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (373).

*Methana* nn. spp. Madagascar, N. S. Wales. **Kirby**, W. F. l.c. (374).

*Microdina* n. gen. India. **Kirby**, W. F. l.c. **11**, 1903, (409).

*Molytria* nn. spp. Tonkin, Borneo. **Kirby**, W. F. l.c. **12**, 1903, (274-275).

*Myliacrina* n. gen., *M. wrayi* n. sp. India. **Kirby**, W. F. l.c. **11**, 1903, (414).

*Nauphaeta basalis* n. sp. Tonkin. **Kirby**, W. F. l.c. **12**, 1903, (378).

*Oxyhaloa nilotica* n. sp. Abyssinie. **Adelung**, N. N. St. Petersburg, Ann. Mus. zool. Ac. Sc., **8**, 1903, (300-337, Taf. XX).

*Panchlora translucida* n. sp. (= *hualina* Sauss.). **Kirby**, W. F. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (378).

*Pancasthia javanica* Serv. description and 4 nn. spp. India. **Kirby**, W. F. l.c. **11**, 1903, (411-412).

— *polita* n. sp. Australia. **Krauss**, H. A. Jena, Denkschr. med. Ges., **8**, 1903, (743-770, 1 Taf.).

— *tepperi* n. nom. for *P. transversa* Tepp. (nec Burm.), *P. perfecta* n. nom. for *P. australis* Sauss. (nec Brunn.). Australia. **Kirby**, W. F. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (412, 414).

*Pelloblatta* n. gen., *P. lata* n. sp. **Rehn**, J. A. G. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (283).

*Pelmatoilpha* nn. spp. Dominica, Trinidad, Queensland. **Kirby**, W. F. Ann. Mag. Nat. Hist., London, **12**, (Ser. 7), 1903, (375-376).

— *coriacea* n. sp. **Rehn**, J. A. G. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (278).

*Periplaneta*, habits. **Marlatt**, C. L. Revised reprint from Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. 4, (84-95); Washington, D.C. Cir. U. S. Dept. Agric. Div. Ent., (Ser. 2), No. **51**, 1902, (15).

*Periplaneta lebedinskii* n. sp. Abyssinie. **Adelung**, N. N. St. Petersburg, Ann. Mus. zool. Ac. Sc., **8**, l.c. 1903, (300-337, Taf. XX).

——— *orientalis* als Überträger von Krankheiten. **Küster**, H. Centralbl. Bakt., Jena, Abt. 1, **33**, Referate, 1903, (90-94).

——— *spinostylata* n. sp. Australia. **Krauss**, H. A. Jena, Denkschr. med. Ges., **8**, 1903, (743-770, 1 Taf.).

*Plectoptera hastifera* n. sp. **Rehn**, A. G. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (281).

*Polyphaga camolorum* n. sp. **Kirby**, W. F. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (407-408).

——— *limbata* n. sp. Afghanistan. (= *sinensis* Sauss.) **Kirby**, W. F. l.c. **12**, 1903, (377).

*Polyzosteria ceratodi* n. sp. Australia. **Krauss**, H. A. Jena, Denkschr. med. Ges., **8**, 1903, (743-770, 1 Taf.).

*Prosoplecta rufa* n. sp. Philippines. **Kirby**, W. F. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (379).

*Pseudoderopeltis* nn. spp. Abyssinie. **Adelung**, N. N. St. Petersburg, Ann. Mus. zool. Ac. Sc., **8**, 1903, (300-337, Taf. XX).

*Pseudomops grata* n. sp. **Rehn**, J. A. G. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (260).

——— *walkeri* n. sp. Tejuca = (*flavipes* Walk.). **Kirby**, W. F. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (379).

*Pseudophoraspis* n. gen. type *Epilampra nebulosa*. **Kirby**, W. F. l.c. (275).

*Pseudophyllodromia paronacea* n. sp. **Rehn**, J. A. G. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (262).

*Rhabdoblatta* n. gen. type *Epilampra praeipua*. **Kirby**, W. F. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (276).

*Rhyparobia* nn. spp. Sierra Leone, Shire River. **Kirby**, W. F. l.c. (377).

——— *thoracica* n. sp. S. Africa. **Kirby**, W. F. l.c. **11**, 1903, (404).

*Salganea duz* n. sp. Russia. **Kirby**, W. F. l.c. (408-409).

*Stylopyga semoni* n. sp. Australia. **Krauss**, H. A. Jena, Denkschr. med. Ges., **8**, 1903, (743-770, 1 Taf.).

*Syntomaptera tepperi* n. sp. Australia. **Kirby**, W. F. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (374).

*Thysanoblatta* n. gen. Perisphaerinae, for *T. latipennis* n. sp. E. Africa. **Kirby**, W. F. l.c. (375).

## MANTIDAE.

### GENERAL.

**Candell**, A. N. A greedy insect. [Mantid]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (60).

**Shelford**, R. Bionomical notes on some Bornean *Mantidae*. Zoologist, London, (Ser. 4), **7**, 1903, (293-304).

### SPECIAL.

*Blepharis mendica*, observation relative à un cas de mimétisme. **Bugnion**, E. Lausanne, Bul. Soc. Sci. Nat., (sér. 4), **39**, 1903, (385-388, av. 1 pl.); Arch. Sci. Phys., Genève, (sér. 4), **16**, 1903, (342-343).

*Deroplatys shelfordi* n. sp. Borneo. **Kirby**, W. F. Zoologist, London, (Ser. 4), **7**, 1903, (304).

*Dystacta*. Deutsch Südwest-Afrika. **Krauss**, H. A. Wien, Verh. ZoolBot. Ges., **51**, 1901, (281-293).

*Gongylus gongyloides*, a floral *Mantis*. **Williams**, C. E. Cambridge, Proc. Phil. Soc., **12**, 1903, (279).

*Gonypteta noctivaga* n. sp. Deutsch Südwest Afrika. **Krauss**, H. A. Wien, Verh. ZoolBot. Ges., **51**, 1901, (283).

*Mantis religiosa*. Messenger Suisse Rom., Genève, **15**, 1902, (244-245, av. 1 fig.).

*Parameles* Sauss., *P. taurica* n. sp. la Crimée (Russ). **Jakovlev**, V. E. Rev. Russ. Ent., Jaroslavl, **3**, 1903, (40-43, av. 2 figs.).

## PHASMODAE.

## GENERAL.

**Caudell, A. N.** The *Phasmodae* or walkingsticks of the United States. Washington, D.C., Smithsonian Inst. Nation. Mus. Proc., **26**, 1903, (863-885, with 4 pls.).

— Note on *Phasmodae*. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **4**, 1903, (314-316).

**Lewis, R. T.** Note on some insects sent from Queensland by Mr. C. J. Pound, F.R.M.S. London, J. Quek. Microsc. Cl., **8**, 1903, (553-554).

**Morton, W.** Notes sur l'élevage des Phyllies. Lausanne, Bull. Sci. Nat., (sér. 4), **39**, 1903, (401-407, av. 1 pl.); Arch. Sci. Phys., Genève, (sér. 4), **16**, 1903, (748-750).

**Tepper, J. G. O.** . . . *Phasmodae* or "spectre insects." Vict. Nat., Melbourne, **19**, 1903, (138-142).

## SPECIAL.

*Bacillus gallicus* au Mans. **Gentil** Mans (le), Bul. soc. agricult. sci., (sér. 2), **30**, 1901-1902, (425-426).

*Cacozelus semoni* n. sp. **Krauss**, H. A. Jena, Denkschr. med. Ges., **8**, 1903, (743-770, 1 Taf.).

*Carausius irregulariterlobatus* n. sp. **Krauss**, H. A. l.c. (743-770, 1 Taf.).

*Cylindromena aenea* n. sp. **Krauss**, H. A. l.c. (743-770, 1 Taf.).

*Diapheromera arizonensis* n. sp. United States. **Caudell**, A. N. Washington, D.C., Smithsonian Inst. Nation. Mus. Proc., **26**, 1903, (877).

*Dictyonura clarinervis*† n. sp. Illinois, Carboniferous. **Melander**, A. L. Chicago, Ill., J. Geol. Univ. Chic., **11**, 1903, (178-198).

*Eurytenema cercata* n. sp. Australia. **Krauss**, H. A. Jena, Denkschr. med. Ges., **8**, 1903, (743-740, 1 Taf.).

*Lamponius portoricensis* n. sp. Porto Rico. **Rehn**, J. A. G. Philadelphia, Pa., Acad. Nat. Sci. Trans. Amer. Ent. Soc., **29**, 1903 (132).

*Megaphasma* n. gen., type *Diapheromera dentricus* Stal. **Caudell**, A. N.

Washington, D.C., Smithsonian Inst. Nation. Mus. Proc., **26**, 1903, (878).

*Parabacillus* n. gen., type *Bacillus coloradus* Scudder. **Caudell**, A. N. l.c. (865).

*Promachus semoni* n. sp. Australia. **Krauss**, H. A. Jena, Denkschr. med. Ges., **8**, 1903, (743-770, 1 Taf.).

*Pseudosermyle* n. gen., *P. banksii*, *P. truncata* nn. spp. United States. **Caudell**, A. N. Washington, D.C., Smithsonian Inst., Nation. Mus. Proc., **26**, 1903, (867-871).

*Timema californica* n. sp. (*Timeminae* n. subfam.) **Scudder**, in **Caudell**, A. N. l.c. (882).

## GRYLLIDAE.

*Aphonomorphus* n. nom. = *Aphonogryllus* Rehn (not of Perkins). **Rehn**, J. A. G. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (258-260).

*Falcicula* n. gen., *F. hebardii* n. sp. **Rehn**, J. A. G. l.c. (258-260).

*Gryllotalpa*: modo seguito per combattere a Nola. **Berlese**, A. Bollettino di Entomologia agraria, Padova, **9**, 1902, (104-116, 128-140, 150-159, 185-189).

*Gryllus*, amitosis in the egg follicle cells. **Conklin**, E. G. Amer. Nat., Boston, Mass., **37**, 1903, (667-675).

— nn. spp. **Blatchley**, W. S. Indiana, Rep. Dept. Geol. Nat. Res., Indianapolis, **27**, 1902, [1903], (123-471).

— *alogus* n. sp. United States. **Rehn**, J. A. G. Philadelphia, Pa., Proc. Acad. Nat. Sci., **54**, 1902, [1903], (717-727).

— *bermudensis* n. sp. **Caudell**, A. N. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (329-331).

— *domesticus*, Anatomie und Histologie des tibialen Gehörapparates. **Herbig**, C. Arch. mikr. Anat., Bonn, **61**, 1903, (697-729, mit 2 Taf.).

*Heterotrypus mimulus* n. sp. **Krauss**, H. A. Jena, Denkschr. med. Ges., **8**, 1903, (743-770, 1 Taf.).

*Nemobius confusus* n. sp. Indiana **Blatchley**, W. S. Indiana, Rep. Dept. Geol. Nat. Res., Indianapolis, **27**, 1902, [1903], (123-471, with pl.).

## LOCUSTIDAE.

## GENERAL.

**Du Buysson, R.** Catalogue des orthoptères locustides des collections du Muséum (1<sup>re</sup> liste). Bul. Muséum, Paris, 1903, (225-227).

**Jacot, E.** Les sauterelles. Dissertation entomologique. Messager Suisse Rom., Fribourg, 16, 1903, (76, 116-117).

**Sheldon, J. L.** Cultures of *Empusa* [with bibliography]. J. Appl. Microsc., Rochester, N.Y., 6, 1903, (2212-2220, with pl.).

## SPECIAL.

*Alogopteron* n. gen., *A. carribbeum* n. sp. **Rehn, J. A. G.** Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (141-142).

*Biró* n. gen. verwandt mit *Phrietaetypus*, *B. carinata*, *B. atropinosa* nn. spp. **Bolivar, I.** Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (163-165).

*Charisoma* n. gen., *Ch. karschi* n. sp. **Bolivar, I.** l.c. (170-171).

*Conocephalus bruneri* n. sp. **Blatchley, W. S.** Indiana, Rep. Dept. Geol. Nat. Res. Indianapolis, 27, 1902, [1903], (123-471, with pl.).

*Cyrtophyllus floridensis* n. sp. **Beutenmüller, W.** New York, N.Y., Bull. Amer. Mus. Nat. Hist., 19, 1903, (637-638).

*Dicorypha furcifera* n. sp. **Krauss, H. A.** Jena, Denkschr. med. Ges., 8, 1903, (743-770, 1 Taf.).

*Diestrammena unicolor* Brunner als Pflanzenschädling. **Ludwig, F.** Ze. Pflanzenkrankh., Stuttgart, 13, 1903, (210-213).

*Dolichopoda geniculata*: contributo alla [sua] conoscenza. Nota I. **Monti, R.** Milano, Rend. Ist. lomb., (Ser. 2), 36, fasc. 12, 1902, (470-491, con tav.).

*Elimaea* nn. spp. **Krauss, A. H.** Insektenbörse, Leipzig, 20, 1903, (372-373).

—— *klinkhardti* n. sp. **Krauss, A. H.** l.c. (395).

—— *theopoldi* n. sp. **Krauss, A. H.** l.c. (308-309).

*Eurycorypha cuspidata* n. sp. Deutsch Südwestafrika. **Krauss, H. A.** Wien, Verh. ZoolBot. Ges., 51, 1901, (292).

*Gryllacris auriculata* n. sp. **Krauss, H. A.** Jena, Denkschr. med. Ges., 8, 1903, (743-770, 1 Taf.).

*Helararium brunneri* n. sp. **Krauss, H. A.** l.c. (743-770, 1 Taf.).

*Ischyra martha* n. sp. **Krauss, A. H.** Insektenbörse, Leipzig, 20, 1903, (308-309).

*Itycephala françoisi* n. sp. **Bolivar, I.** Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (171-172).

*Liotrachela brunneri* n. sp. **Krauss, A. H.** Insektenbörse, Leipzig, 20, 1903, (395).

*Melidia brunneri* ♂. **Krauss, H. A.** Wien, Verh. ZoolBot. Ges., 51, 1901, (291).

*Peranabrus scabricollis*, internal anatomy. **Snodgrass, R. E.** New York, N.Y., J. Ent. Soc., 11, 1903, (183-188, with 2 pls.).

*Phrietaetypus viridis* Brunn., Beschreibung. **Bolivar, I.** Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (163).

*Phrizocnemis hastiferus* n. sp. United States. **Rehn, J. A. G.** Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (240-241).

*Phyllophora horváthi* n. sp.; *P. lanceolata* Brunn., *P. variegata* Brunn., Beschreibung. **Bolivar, I.** Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (175-178).

*Rachidorus semoni* n. sp. **Krauss, H. A.** Jena, Denkschr. med. Ges., 8, 1903, (743-770, 1 Taf.).

*Saga cappadocica* n. sp. Westasien. **Werner, F.** Zool. Anz., Leipzig, 26, 1903, (528-531).

*Sasinia* n. gen. verwandt mit *Phyllophora*, *S. spinosa* Brunn., faunistisch; *S. areolata*, *S. lactuca* nn. spp. **Bolivar, I.** Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (173-175).

*Segestidea* n. gen. verwandt mit *Segestes* Stål, *S. princeps*, *S. marmorata*, *S. punctipennis* nn. spp. **Bolivar, I.** l.c. (166-168).

*Siliquifera* n. gen. verw. mit *Phyllophora*, *S. grandis* Blanch. **Bolivar**, I. l.c. (178).

*Stenopelmatus terrenus* n. sp. United States. **Rehn**, J. A. G. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (240-241).

*Udeopsylla vierecki* n. sp. United States. **Rehn**, J. A. G. Philadelphia, Pa., Proc. Acad. Nat. Sci., **54**, 1902, [1903], (717-727).

## ACRIDIIDAE.

### GENERAL.

**Bruner**, L. Grasshopper notes for 1901. Washington, D.C., Bull. U.S. Dept. Agric. Div. Ent., (N. Ser.), No. **38**, 1902, (39-49).

——— Killing destructive locusts with fungous diseases. l.c. (50-61).

**Clément**, A. L. Le criquet marbré. Nature, Paris, (1<sup>re</sup> sem.), **31**, 1903, (97-98, av. fig.).

**Machon**, Acridiens de l'Argentine. Arch. Sci. Phys., Genève, (sér. 4), **15**, 1903, (571).

**Marchal**. Les criquets en 1901. Autun, Bul. soc. sci. nat., **15**, 1902, (Proc.-verb. 28-30).

**Rehn**, J. A. G. Contributions toward a knowledge of the Orthoptera of Japan and Korea, I *Acrididae*. Philadelphia, Pa., Proc. Acad. Nat. Sci., **54**, 1902, [1903], (629-637).

**Sander**, L. Die Wanderheuschrecken und ihre Bekämpfung in unseren afrikanischen Kolonien. Berlin, 1902, (544). [Review] by W. F. K., Nature, London, **67**, (244).

**Saussure**, H. de. Analecta Entomologica. II. Notice sur la tribu des Eumastaciens. Rev. Suisse Zool., Genève, **11**, 1903, (43-112, 1 pl.).

### SPECIAL.

*Acridium* Geoffroy synonym of *Locusta* Linnaeus. **Rehn**, J. A. G. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (101-102).

*Aptenopedes clara* n. sp. Florida. **Rehn**, J. A. G. l.c. (14).

*Catantops debilis* n. sp. Deutsch Südwestafrika. **Krauss**, H. A. Wien, Verh. ZoolBot. Ges., **51**, 1901, (291).

*Cirphula sculpta* n. sp. **Krauss**, H. A. Jena, Denkschr. med. Ges., **8**, 1903, (743-770, 1 Taf.).

*Coptotettix inflatus* n. sp. **Krauss**, H. A. l.c. (743-770, 1 Taf.).

*Encoptolophus subgracilis* n. sp. Arizona. **Caudell**, A. N. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (162-166).

*Erianthus* nn. spp. India and Ceylon. **de Saussure**, H. Rev. Suisse Zool., Genève, **11**, 1903, (78-83).

*Erucius* nn. spp. Borneo. **de Saussure**, H. l.c. (85-86).

*Eumastax dentatus* n. sp. Costa Rica. **de Saussure**, H. l.c. (91).

*Euschmidtia* nn. spp. **de Saussure**, H. l.c. (104-109).

*Euthymia* nn. spp. **Finot**, A. Paris, Ann. Soc. Ent., **71**, (2<sup>e</sup> semest.), 1902, (620-636, av. fig.).

*Halmenus* nn. spp. Galapagos Islands. **Snodgrass**, R. E. Washington, D.C., Proc. Acad. Sci., **4**, 1902, (411-454, with 2 pl.).

*Heliastus guanieri* n. sp. United States. **Caudell**, A. N. Washington, D.C., Smithsonian Inst., Nation. Mus. Proc., **26**, 1903, (794).

*Hemieranthus* n. gen. (~ *Erianthus*), *H. gabonicus* n. sp. **Saussure**, H. de. Zool. Anz., Leipzig, **26**, 1903, (412-416); Rev. Suisse Zool., Genève, **11**, 1903, (75-76).

*Lactista boscanus* n. sp. United States. **Rehn**, J. A. G. Philadelphia, Pa., Proc. Acad. Nat. Sci., **54**, 1902, [1903], (717-727).

*Leprus*, notes on the genus; *L. cyaneus* n. sp. **Cockerell**, T. D. A. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (305-307).

*Ligurotettix kunzei* n. sp. Arizona. **Caudell**, A. N. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (162-166).

*Locusta* Linnaeus = *Acridium* Geoffroy or *Cyrtacanthacris* Walker. **Rehn**, J. A. G. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (101-102).

*Malugassa* n. gen. (~ *Episactites* Burr), *M. coniceps* n. sp. **Saunders**, H. de Zool. Anz., Leipzig, **26**, 1903, (412-415); *Rev. Suisse Zool.*, Genève, **11**, 1903, (88-89).

*Mastacides vaginalis* n. sp. India. **de Saussure**, H. *Rev. Suisse Zool.*, **11**, 1903, (87).

*Mecostethus magister* n. sp. **Rehn**, J. A. G. Philadelphia, Pa., *Proc. Acad. Nat. Sci.*, **54**, 1902, [1903], (629-637).

*Melanoplus* nn. spp. United States. **Candell**, A. N. Washington, D.C., Smithsonian Inst., *Nation. Mus. Proc.*, **26**, 1903, (799-802).

——— *differentialis*. Louisiana. **Morgan**, H. A. Washington, D.C., *Bull. U. S. Dept. Agric. Div. Ent.*, (N. Ser.), No. **30**, 1901, (7-33).

——— *femoratus*, notes. **Phillips**, J. L. *L. c.* No. **40**, 1903, (87).

——— *morsei* n. sp. Indiana. **Blatchley**, W. S. Indiana, *Rep. Dept. Geol. Nat. Res.*, Indianapolis, **27**, 1902, [1903], (123-471, with pl.).

*Neotettix hancocki* n. sp. Indiana. **Blatchley**, W. S. *L. c.* (123-471, with pl.).

*Orbillus namaqua* n. sp. S.W. Africa. **Krauss**, H. A. Wien, *Verh. ZoolBot. Ges.*, **51**, 1901, (288).

*Pachytulus cinerascens*, Vorkommen bei Kahl am Main. **Fröhlich**. *Berliner ent. Zs.*, **48**, 1903, (146-148).

*Pamphagus marmoratus*. **Krause**, E. *Prometheus*, Berlin, **14**, 1903, (665-668).

*Paramastax* nn. spp. Brazil. **de Saussure**, H. *Rev. Suisse Zool.*, Genève, **11**, 1903, (93-97).

*Parapleurus fastigiatus* n. sp. **Rehn**, J. A. G. Philadelphia, Pa., *Proc. Acad. Nat. Sci.*, **54**, 1902, [1903], (629-637).

*Parepisactus saltator* n. sp. Centr. Amer. **de Saussure**, H. *Rev. Suisse Zool.*, Genève, **11**, 1903, (88).

*Phrynotettix*, note on the genus, *P. taosanus* n. sp. **Rehn**, J. A. G. Philadelphia, Pa., *Proc. Acad. Nat. Sci.*, **54**, 1902, [1903], (595-598).

*Phyllochorea* ? *sulcata* n. sp. **de Saussure**, H. *L. c.* (59).

(N 2-9053)

*Phyllotettix* n. nom. = *Phyllonotus* Hancock not Swainson. **Hancock**, J. L. Philadelphia, Pa., *Ent. News Acad. Nat. Sci.*, **13**, 1902, (188).

*Psinidia sulcifrons* var. *amplicornus* n. var. United States. **Candell**, A. N. Washington, D.C., Smithsonian Inst., *Nation. Mus. Proc.*, **26**, 1903, (791).

*Pyrgomorpha sanderi* n. sp. S. W. Africa. **Krauss**, H. A. Wien, *Verh. ZoolBot. Ges.*, **51**, 1901, (287).

*Schistocerca* nn. var. et nn. spp. Galapagos Islands. **Snodgrass**, R. E. Washington, D.C., *Proc. Acad. Sci.*, **4**, 1902, (411-454).

——— *alutacea* and *S. rubiginosa*, pairing. **Rehn**, J. A. G. Philadelphia, Pa., *Ent. News Acad. Nat. Sci.*, **13**, 1902, (89).

*Scirtomastax* n. gen. (= *Eumastax*), *S. cordillerae* n. sp. **Saunders**, H. de Zool. Anz., Leipzig, **26**, 1903, (412-415); *Rev. Suisse Zool.*, Genève, **11**, 1903, (97-98).

*Sphingonotus* nn. spp. Galapagos Islands. **Snodgrass**, R. E. Washington, D.C., *Proc. Acad. Sci.*, **4**, 1902, (411-454).

*Stirapleura mesclero* n. sp. **Rehn**, J. A. G. Philadelphia, Pa., *Proc. Acad. Nat. Sci.*, **54**, 1902, [1903], (717-727).

*Tauchira lucida* n. sp. **Krauss**, H. A. *Jena, Denkschr. med. Ges.*, **8**, 1903, (743-770, 1 Taf.).

*Xanthomastax* n. gen. (= *Eumastax*), *X. crassipes*, *X. furcatus* nn. spp. **Saunders**, H. de Zool. Anz., Leipzig, **26**, 1903, (412-415); *Rev. Suisse Zool.*, Genève, **11**, 1903, (99-101).

## NEUROPTERA.

**Borg**, A. Annotations on Swedish Neuroptera. (Swedish). *Entomol. Tidskr.*, Stockholm, **22**, 1901, (175-176).

**Enderlein**, G. Ueber die Morphologie, Gruppierung und systematische Stellung der Corrodienten. *Zool. Anz.*, Leipzig, **26**, 1903, (423-437).

**McLachlan**, R. *Amphibiotica*. *Nat. Hist. Sokotra*, (398-403, pls. XXIV-XXIVΔ).



## NEUROPTEROIDEA.

*Cheliphlebia extensa* † n. sp. Illinois, Carboniferous. **Melander, A. L.** Chicago, Ill., J. Geol. Univ. Chic., **11**, 1903, (178-198).

*Dieconeura maxima* † n. sp. Illinois, Carboniferous. **Melander, A. L.** l.c. (178-198).

*Eucanus* † nn. spp. Illinois, Carboniferous. **Melander, A. L.** l.c. (178-198).

*Homoioptera gigantea* † n. sp. **Agnus, Al. N.** Naturaliste, Paris, (sér. 2), **25**, 1903, (53-55, av. fig.).

*Petromartus* n. gen., *P. indistinctus* † n. sp. Illinois, Carboniferous. **Melander, A. L.** Chicago, Ill., J. Geol. Univ. Chic., **11**, 1903, (178-198).

*Protodictyon* n. gen., *P. pulchripennis* † n. sp. Illinois, Carboniferous. **Melander, A. L.** l.c. (178-198).

## PLANIPENNIA.

## GENERAL.

**Banks, N.** A revision of the Nearctic *Chrysopidae*. [With bibliography]. Philadelphia, Pa., Acad. Nat. Sci. Trans. Amer. Ent. Soc., **29**, 1903, (137-162, with pl.).

**Currie, R. P.** *Myrmeleonidae* from Arizona. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (272-284).

**Davis, K. C.** *Sialididae* of North and South America. [With bibliography]. Albany Univ., N.Y., Bull. St. Mus., No. **68**, 1903, (442-499, with pl.).

**Kirby, W. F.** Planipennia. Nat. Hist. Sokotra, (404-405).

**Strand, E.** Trichoptera and Neuroptera-Planipennia collected in Norway. (Norw.) Entomol. Tidskr., Stockholm, **22**, 1901, (93-96).

## SPECIAL.

*Acanthaclisis lineata* n. sp. **Kirby, W. F.** Nat. Hist. Sokotra, (404).

*Albardia* n. gen., *A. furecata* n. sp. **Woede, H. W.** Leiden, Notes Mus. Jentink, **23**, 1903, (234-236).

*Allochrysa* n. gen., *A. parvula* n. sp. **Banks, N.** Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (143).

*Brachynemurus* nn. spp. **Banks, N.** Washington, D.C., Proc. Ent. Soc., **5**, 1903, (174-175).

———— nn. spp. **Currie, R. P.** l.c. (277-284).

———— *cockerelli* n. sp. **Banks, N.** Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (86).

———— *dorsalis* n. sp. **Banks, N.** New York, N.Y., J. Ent. Soc., **11**, 1903, (240).

*Chauliodes* nn. spp. N. and S. America. **Davis, K. C.** Albany Univ., N.Y., Bull. St. Mus., No. **68**, 1903, (462-463).

———— *flicornis* n. sp. Arizona. **Banks, N.** Washington, D.C., Proc. Ent. Soc., **5**, 1903, (238).

*Chrysopa* nn. spp. **Banks, N.** Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (146-155).

———— *aztecana* n. sp. **Banks, N.** New York, N.Y., J. Ent. Soc., **11**, 1903, (239).

*Corydalus* nn. spp. N. and S. America. **Davis, K. C.** Albany Univ., N.Y., Bull. St. Mus., No. **68**, 1903, (480-482).

———— *texana* n. sp. **Banks, N.** New York, N.Y., J. Ent. Soc., **11**, 1903, (239).

*Eremochrysa* n. gen., *E. hageni* n. sp. **Banks, N.** Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (158).

*Hemerobius* nn. spp. Arizona. **Banks, N.** Washington, D.C., Proc. Ent. Soc., **5**, 1903, (241-242).

*Leucochrysa punctata* n. sp. **Banks, N.** New York, N.Y., J. Ent. Soc., **11**, 1903, (238).

*Megalomus latus* n. sp. Arizona. **Banks, N.** Washington, D.C., Proc. Ent. Soc., **5**, 1903, (240).

*Myrmeleon immaculatus* var. *occidentalis* n. var. Arizona. **Currie, R. P.** l.c. (274).

———— *mexicanum* n. sp. **Banks, N.** New York, N.Y., J. Ent. Soc., **11**, 1903, (241).

*Myrmeleon texanus*, and *M. rusticus*.  
**McClendon**, J. F. [Contributions from the Zoological laboratory of the University of Texas, No. 33]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (209-213, with 1 pl.).

*Neuromus* nn. spp. N. and S. America **Davis**, K. C. Albany Univ., N.Y., Bull. St. Mus., No. **68**, 1903, (470).

*Psammoleon sinuatus* n. sp. Arizona, **Currie**, R. P. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (275).

*Psychopsis*, notes on the genus. **Froggatt**, W. W. Sydney, N.S.W., Proc. Linn. Soc., N. S. Wales, **28**, 1903, (453-456, with 1 pl.).

——— *neumani* n. sp. = *P. mimica*, Newm. **Froggatt**, 1902, *P. mimica* Newman, notes, *P. insolens* McLachlan, notes, *P. coelivagus* Walker, notes. **Froggatt**, W. W. l.c. (453-456, with 1 pl.).

*Raphidia minuta* n. sp. Arizona. **Banks**, N. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (239).

*Sialis* nn. spp. N. and S. America. **Davis**, K. C. Albany, Univ. N.Y., Bull. St. Mus., No. **68**, 1903, (450).

*Ulula hyalina*, life history. **McClendon**, J. F. Austin, Cont. Zool. Lab. Univ. Tex., No. **27**; Amer. Nat., Boston, Mass., **36**, 1902, (421-429).

## EMBIIDAE.

*Embia taurica* n. sp. Crimea. **Kuznecov**, N. I. Rev. Russ. Ent., Jaroslavl, **3**, 1903, (208-210).

——— *texana*, notes. **Melander**, A. I. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **4**, 1903, (99-118).

## TERMITIDAE.

### GENERAL.

**Forbes**, H. O. Pseudo-neuroptera. Nat. Hist. Sokotra, (397).

**Froggatt**, W. W. The white ant city, a nature study. Agric. Gaz., Sydney, N.S.W., **14**, 1903, (726-730, with 1 pl. and text figs.).

**Heath**, H. The habits of California termites. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **4**, 1903, (47-63).

(n 2-9053)

**Loir**, A. La destruction des termites. Paris, C.-R. Acad. sci., **136**, 1903, (1290-1291).

**Silvestri**, F. Intorno la società dei Termiti considerati in rapporto alla agricoltura e all'uomo. Bollettino di Entomologia agraria, Padova, **9**, 1902, (25-31).

### SPECIAL.

*Termes flavipes* Koll., habits. **Marlatt**, C. L. [Revised reprint from Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **4**, (70-76).] Washington, D.C., Cir. U. S. Dept. Agric. Div. Ent., (Ser. 2), No. **50**, 1902, (8).

## PSOCIDAE.

### GENERAL.

**Enderlein**, G. Die Copeognathen des indo-australischen Faunengebietes. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., **1**, 1903, (179-344, mit 1 Taf. III-XIV und 12 Textfig.).

——— Zur Kenntniss amerikani-scher Psociden. Zool. Jahrb., Jena, Abt. f. Syst., **18**, 1903, (351-364, mit 2 Taf.).

——— Zur Kenntnis europäischer Psociden. l.c. (365-382, 1 Taf.).

### SPECIAL.

*Amphientomum trichopteryx* Hag., Beschreibung. **Enderlein**, G. Budapest, Ann. Hist. Nat. Mus. Nat. Hung., **1**, 1903, (310-312).

*Amphipsocus pilosus* MacLachl., Beschreibung. **Enderlein**, G. l.c. (279-280).

*Archipsocus recens* n. sp., *A. puber* Hagen, Beschreibung. **Enderlein**, G. l.c. (282-289, Taf. VIII).

*Azinopsocus* n. gen. (*Procatropus ribaga*), *A. microps* n. sp. Kamerun. **Enderlein**, G. Zool. Jahrb. Jena, Abt. f. Syst., **19**, 1903, (2-3).

*Caecilus* nn. spp. America. **Enderlein**, G. l.c. (356).

——— *cribrarius* Hag., *C. multipunctatus* Hag., *C. aridus* Hag., *C. pictipennis* M'Lachlan, Beschreibung. *C. fuscopterus* Lat. var. *tonkinensis* n.

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var. and 14 nn. spp. **Enderlein**, G. Budapest, Ann. Hist. Nat. Mus. Nat. Hung., 1, 1903, (264-277, Taf. VI, VII, XIII, XIV).

*Caecilius pinicola* n. sp. **Banks**, N. New York, N.Y., J. Ent. Soc., 11, 1903, (238).

*Callioptera* n. gen., *C. anna* n. sp. **Enderlein**, G. Budapest, Ann. Hist. Nat. Mus. Nat. Hung., 1, 1903, (248-249, Taf. V).

*Calopocus infelix* **Hagen**, Beschreibung. **Enderlein**, G. l.c. (246-247, Taf. VI).

*Cerastipocus subcostalis* n. sp. **Enderlein**, G. l.c. (215, Taf. IV).

*Copostigma* n. gen. verwandt mit *Psocus*, *C. dorsopunctatum*, *C. palliatum*, *C. maculiceps*, *C. fumatum*, *C. indicum*. *C. brevistylus* nn. spp. **Enderlein**, G. l.c. (229-233, Taf. IV).

*Cymatopsocus* n. gen. verwandt mit *Amphientomum*, *C. opalinus* n. sp. **Enderlein**, G. l.c. (314-317, Taf. IX-XII).

*Deinopsocus* n. gen., *D. spheciophilus* n. sp. **America**. **Enderlein**, G. Zool. Jahrb., Jena, Abt. f. Syst., 18, 1903, (358-359).

*Dendroneura* n. gen., *D. ranulosa* n. sp. **America**. **Enderlein**, G. l.c. (354-355).

*Dypsocus coleopratus* **Hagen**, *D. dolabratus* **Hag.**, Beschreibung. **Enderlein**, G. Budapest, Ann. Hist. Nat. Mus. Nat. Hung., 1, 1903, (250-251, Taf. V).

*Echinopsocus* n. gen. verw. mit *Psocathropos* **Rib.**, *E. erinaceus* n. sp. **Enderlein**, G. l.c. (331-332, Taf. X-XII).

*Ectopsocus denudatus* n. sp., *E. briggsi* **MacLachlan**, Beschreibung. **Enderlein**, G. l.c. (293-296, Taf. VII-XIV).

*Elipsocus boops* **Hag.**, *E. impressus* **Hag.**, Beschreibung. **Enderlein**, G. l.c. (304-305).

*Episcopus delicatus* **Hag.**, *E. roseus* (**Hag.**), Beschreibung und 5 nn. spp. **Enderlein**, G. l.c. (252-258, Taf. V-VI).

*Fälleborniella* nn. spp. **Enderlein**, G. l.c. (280-282, Taf. VII).

*Graphopsocus uniformis* **Hagen**, Beschreibung. **Enderlein**, G. l.c. (241-242).

*Hageniella* n. gen. verwandt mit *Epipsocus* (**Hag.**), *H. zonata* (**Hag.**), *H.*

*lanata* (**Hag.**), *H. molesta* (**Hag.**). **Enderlein**, G. l.c. (258-259).

*Hemicacilius* n. gen., *H. bogotanus* n. sp. **America**. **Enderlein**, G. Zool. Jahrb., Jena, Abt. f. Syst., 18, 1903, (357-358).

*Hemipocus chloroticus* var. *luridus*. n. var. **Enderlein**, G. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (233-235, Taf. VI).

*Ichnopteryx cincta* n. sp. **America**. **Enderlein**, G. Zool. Jahrb., Jena, Abt. f. Syst., 18, 1903, (351).

*Kolbea* nn. spp. **Enderlein**, G. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (278-279, Taf. V, XIV).

*Lepidopsocus* n. gen., *L. nepticulides* n. sp. **Enderlein**, G. l.c. (328-331, Taf. IX-XII).

*Leptella*, systematische Stellung. **Enderlein**, G. Zool. Anz., Leipzig, 27, 1903, (131-134).

*Micropsocus musae* (**Kunstler & Chaine**). **Enderlein**, G. Zool. Jahrb., Jena, Abt. f. Syst., 19, 1903, (288-292).

—— *watertradi* **Enderl.**, Beschreibung und nn. spp. **Enderlein**, G. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (296-299, Taf. VII, XIV).

*Myopsocus camerunus* n. sp. **Kamerun**. **Enderlein**, G. Zool. Jahrb., Jena, Abt. f. Syst., 19, 1903, (5).

—— *unduosus* **Hag.**, *M. fraternus* **MacLachlan**, *M. griseipennis* **MacLachlan**, *M. australis* (**Brauer**), *M. novae zealandiae* **Kolb.**, Beschreibung; *M. kolbei* n. sp. **Enderlein**, G. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (299-303, Taf. IX-X).

*Neurosema apicalis* **MacLachlan**, Beschreibung. **Enderlein**, G. l.c. (243-245, Taf. V).

*Nymphopsocus* n. gen., *N. destructor* n. sp. **Enderlein**, G. Zool. Anz., Leipzig, 27, 1903, (76).

*Perientomum gregarinum* **Hag.**, *P. superbum* **Hag.**, *P. incultum* **Hag.**, *P. morosum* **Hag.**, *P. triste* **Hag.**, Beschreibung; *P. birotianum* n. sp. **Enderlein**, G. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (320-327, Taf. XI-XIII).

—— *hosemanni* n. sp. **Kamerun**. **Enderlein**, G. Zool. Jahrb., Jena, Abt. f. Syst., 19, 1903, (3).

*Peripocus* nn. spp. **Banks**, N. New York, N.Y., J. Ent. Soc., 11, 1903, (237).

———— *piger* Hagen, *P. aethiops* Hagen, Beschreibung und 5 nn. spp. **Enderlein**, G. Budapest, Ann. Hist. Nat. Mus. Nat. Hung., 1, 1903, (289–293, Taf. VII).

*Philotarsus* nn. spp. **Enderlein**, G. l.c. (307–310, Taf. IX–X).

*Propocus pallipes* MacLachlan, Beschreibung. **Enderlein**, G. l.c. (303–304).

*Protodyspocus* n. gen. verwandt mit *Dyspocus*, *P. fusciceps* n. sp. **Enderlein**, G. l.c. (251–252, Taf. XIII).

*Pseudocaecilius* n. gen. verwandt mit *Epipocus*, *P. elutus*, *P. testaceus*, *P. ornatus*, *P. lachlani* nn. spp. **Enderlein**, G. l.c. (260–263, Taf. V).

*Psilopocus* n. gen. Isoliert stehend, *P. nigricornis* n. sp. **Enderlein**, G. l.c. (305–307, Taf. XIV).

*Psocus* nn. spp. **Banks**, N. New York, N.Y., J. Ent. Soc., 11, 1903, (236–237).

———— nn. spp. America. **Enderlein**, G. Zool. Jahrb., Jena, Abt. f. Syst., 18, 1903, (352–353).

———— *conspersus* n. sp. Arizona. **Banks**, N. Washington, D.C., Proc. Ent. Soc. 5, 1903, (237).

———— *longicornis* Fabr., *P. consitus* Hag., *P. oblitus* Hag., *P. trimaculatus* Hag., faunistisch, *P. nebulosus* Steph., *P. taprobanes* Hagen, *P. circularis* Hag., *P. obtusus* Hag., *P. quinquepunctatus* MacLachl., Beschreibung und 6 nn. spp. **Enderlein**, G. Budapest, Ann. Hist. Nat. Mus. Hung., 1, 1903, (215–229, Taf. IV).

*Psylloneura* n. gen. verwandt mit *Psyllipocus*, *P. simbangana* n. sp. **Enderlein**, G. l.c. (317–319, Taf. IX–XI).

*Pterodela livida* n. sp. **Enderlein**, G. Zool. Jahrb., Jena, Abt. f. Syst., 18, 1903, (374).

*Psilopocus annulicornis* n. sp. **Banks**, N. New York, N.Y., J. Ent. Soc., 11, 1903, (238).

*Reuterella* n. gen. **Enderlein**, G. Zool. Anz., Leipzig, 27, 1903, (131–134).

*Stenopocus apertus* Hag., *S. striatifrons* Mac. Lachl., Beschreibung; *S. tonkinensis* n. sp. **Enderlein**, G. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (239–241, Taf. VI).

*Stigmatopathus* n. gen. verwandt mit *Amphientomum*, *St. horvathi* n. sp. **Enderlein**, G. l.c. (312–313, Taf. IX–XII).

*Syllysis caudata* Hag., Beschreibung. **Enderlein**, G. l.c. (319–320).

*Taeniosigma elongatum* Hagen, *T. malayanum* MacLachl., *T. ingens* n. sp. **Enderlein**, G. l.c. (235–239).

*Troctes* spp. **Banks**, Nathan. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (241).

———— nn. spp. America. **Enderlein**, G. Zool. Jahrb., Jena, Abt. f. Syst., 18, 1903, (360–361).

———— *divinatorius* Müll., Faunistisch. **Enderlein**, G. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (335).

*Tropusia oleagina* Hagen, Beschreibung. **Enderlein**, G. l.c. (333–334).

## PERLIDAE.

### GENERAL.

**Ris**, F. Einiges über kurzflügelige Perliden. Schaffhausen, Mitt. Schweiz. Entomol. Ges., 10, 1903, (443–446).

### SPECIAL.

*Dictyopteryx dovreensis* n. sp. Norwegen. **Kempny**, P. Wien. Verh. ZoolBot. Ges., 51, 1901, (788–791).

*Nemura*, die schweizerischen Arten. **Ris**, F. Schaffhausen, Mitt. Schweiz. Entomol. Ges., 10, 1902, (378–405, mit 6 pls.).

*Perlodes* n. nom. (= *Dictyopteryx* Pictet not Stephens). **Banks**, N. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (241).

*Taeniopteryx nebulosa* L., Tracheenkiemen an den Beinen einer Larve. **Lauterborn**, R. Zool. Anz., Leipzig, 26, 1903, (637–642).

## EPHEMERIDAE.

## GENERAL.

**Berry, E. W.** New or hitherto unknown Ephemerid nymphs of the eastern United States [New Jersey]. *Amer. Nat.*, Boston, Mass., **37**, 1903, (25-31).

**Gross, J.** Ueber das Palmén'sche Organ der Ephemeriden. *Zool. Jahrb.*, Jena, Abt. f. Anat., **19**, 1903, (91-106, mit 1 Taf.).

**Marchal, C.** Une remarquable éclosion d'Ephémères. *Autun. Bul. soc. sci. nat.*, **15**, 1902, (Proc.-verb. 260-262).

**Needham, J. G.** Food of brook trout [*Salmo fontinalis*] in Bone pond. [Species of *Ephemeridae*.] Albany Univ., N.Y., *Bull. St. Mus.*, No. **68**, 1903, (204-217, with pl.).

## SPECIAL.

*Callibaetes skokiana* n. sp. **Needham, J. G.** Albany Univ., N.Y., *Bull. St. Mus.*, No. **68**, 1903, (215).

*Habrophlebia americana* n. sp. **Banks, N.** Philadelphia, Pa., *Ent. News Acad. Nat. Sci.*, **14**, 1903, (235, with text-fig.).

\_\_\_\_\_ *americana*. **Banks, MSS.** in **Berry, E. W.** *Amer. Nat.*, Boston, Mass., **5**, 1903, (26).

*Siphurus aestivalis* n. sp. Norway. **Eaton, A. E.** *Ent. Mag.*, London, **39**, 1903, (30).

## ODONATA.

## GENERAL.

**Brauner, A.** Notices sur divers Odonates. (Russ.) *Rev. Russ. Ent.*, Jaroslavl, **3**, 1903, (89-91).

**Brimley, C. S.** List of dragonflies (Odonata) from North Carolina, especially from the vicinity of Raleigh. Philadelphia, Pa., *Ent. News Acad. Nat. Sci.*, **14**, 1903, (150-157).

**Calvert, P. P.** Neuroptera-Odonata [from Beulah, New Mexico]. Philadelphia, Pa., *Acad. Nat. Sci.*, *Trans. Amer. Ent. Soc.*, **29**, 1902, (42-43).

**Calvert, P. P.** Additions to the Odonata of New Jersey, with descriptions of two new species. Philadelphia, Pa., *Ent. News Acad. Nat. Sci.*, **14**, 1903, ([33]-41, with pl.).

\_\_\_\_\_ Spiders as enemies of dragonflies. *l.c.* (161-162).

\_\_\_\_\_ On some American Gomphinae (Odon.). *l.c.* (183-192, with 1 pl.).

\_\_\_\_\_ [Note on Maryland Odonata, with paper by F. Ris]. *l.c.* (219-220).

\_\_\_\_\_ Distribution of New York dragon flies [Odonata]; additional data. Albany Univ., N.Y., *Bull. St. Mus.*, No. **68**, 1903, (276-279).

**Currie, R. P.** The Odonata collected by Messrs. Schwarz and Barber in Arizona and New Mexico. Washington, D.C., *Proc. Ent. Soc.*, **5**, 1903, (298-303).

**Fröhlich, C.** Die Odonaten und Orthopteren Deutschlands mit besonderer Berücksichtigung der bei Aschaffenburg vorkommenden Arten, nach der analyt. Methode beab. IV. Mitteilung des naturwissenschaftlichen Vereins zu Aschaffenburg, breg. zur Feier seines 25-jährigen Bestehens. Jena (G. Fischer), 1903, (VI + 106, mit 6 Taf.). 23 cm. 4 M.

**Graf, J. L.** Additions to the above list [with A list of the dragonflies observed in western Pennsylvania, by E. B. Williamson]. Philadelphia, Pa., *Ent. News Acad. Nat. Sci.*, **13**, 1902, (113-114).

**Grünberg, Karl.** Zur Kenntniss der Odonatenfauna des ost-afrikanischen Seengebiets. Ergebnisse der Nyassa-See- und Kinga-Gebirgs-Expedition der Hermann und Elise geb. Heckmann-Wentzel-Stiftung. *Zool. Jahrb.*, Jena, Abt. f. Syst., **18**, 1903, (395-726).

\_\_\_\_\_ Neue Odonaten aus dem Njassa-Gebiet, gesammelt von Dr. Fülleborn. Berlin, Sitzber. Ges. natf. Freunde, **1902**, (230-237).

**Higgins, H. T.** The development and comparative structure of the gizzard in the Odonata Zygoptera. [Thesis . . . B.S. . . . University of Pennsylvania . . . 1900]. Philadelphia, Pa., *Proc. Acad. Nat. Sci.*, **53**, 1901, (126-141, with pl.); [reprint], Philadelphia, Cont. Zool. Lab., Univ. Pa., **1901**, 1902, ([126]-141, with pl.).

**Laidlaw, F. F.** Odonata (from Malay Peninsula). Part 1 in Fascic. Malay. Zool., 1, (185-200).

**McLachlan, R.** An annotated list of Odonata collected in West Central Spain, by Dr. T. A. Chapman and Mr. G. C. Champion in June and July, 1902. Ent. Mag., London, 39, 1903, (7-9).

**Namiye, [M.]** Odonata of Prov. Tosa. (Japanese) Dobuts. Z., Tokyo, 15, 1903, (297).

Plates illustrating the species of Japanese Odonata. I.e. (pls. IX-XIII).

**Needham, J. G.** A genealogic study of dragon-fly wing venation. Thesis . . . Ph.D. . . . Cornell. Washington, D.C., Smithsonian Inst., Nation. Mus. Proc., 26, 1903, (703-764, with 24 pls.).

Life histories of Odonata, suborder Zygoptera, Damselflies. Albany Univ., N.Y., Bull. St. Mus., No. 68, 1903, (218-276, with pl.).

and **Antony, M. H.** The skewness of the thorax in the Odonata. New York, N.Y., J. Ent. Soc., 11, 1903, (117-125, with 1 pl.).

**Ris, F.** Note on a small collection of dragonflies (Odonata) from Baltimore, Maryland [with note by Philip P. Calvert]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (216-220).

Vorweisung europaischer und amerikanischer Libellen. Schaffhausen, Mitt. Schweiz. Entomol. Ges., 10, 1903, (436-443).

**Wadsworth, M.** Sixth addition to the list of dragon flies (Odonata) of Manchester, Kenbec county, Maine. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (246-247).

**Westerlund, J. A.** Pseudoneuroptera in the neighbourhood of Ronneby, (South Sweden). (Swedish) Entomol. Tidskr., Stockholm, 22, 1901, (137-142).

**Williamson, E. B.** A list of the dragonflies observed in western Pennsylvania [with Additions to the above list, by J. L. Graf]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (65-71, 108-114, with pl.).

Dragonflies (Odonata) from the Magdalen islands. I.e. (144-146).

**Williamson, E. B.** Spiders as enemies of dragonflies. I.e. 14, 1903, (160-161).

The dragonflies (Odonata) of Tennessee with a few records from Virginia and Alabama. I.e. (221-229).

#### SPECIAL.

*Aeschna grandis*, emergence. Dobson, H. T. Entomologist, London, 36, 1903, (253-254).

*Agriocnemis consimilis* n. sp. Njassa. Grünberg. Berlin, SitzBer. Ges. natf. Freunde, 1902, (230-237).

*Agrionoptera similis* Sélys, *A. papuensis* Sélys, *A. longitudinalis* Sélys, *A. biserialis* Sélys, Beschreibung. Förster, F. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (533-536).

*Anomalagrion hastatum*. United States. Calvert, P. P. Biol. Centr.-Amer., London, 1903, (130).

*Birónides* n. gen. verw. mit *Nannophlebia*, *B. superstes* n. sp. Förster, F. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (521-524).

*Caconeura torrenticola* n. sp. Förster, I.e. (552-554).

*Ceratura capreola*. Mexico. Calvert, P. P. Biol. Centr.-Amer., London, 1903, (131).

*Chlorocnemis inepta* n. sp. Njassa. Grünberg. Berlin, SitzBer. Ges. natf. Freunde, 1902, (230-237).

*Chromagrion* n. gen. Needham, J. G. Albany Univ., N.Y., Bull. St. Mus., No. 68, 1903, (245).

*Coryphaeschna* n. gen., type *Aeschna ingens* Rambur. Williamson, E. B. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (8, 9).

species . . . Calvert, P. P. I.e. (8-10, with pl.).

*Crotilla* Kirby. Förster, F. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (536-537).

*Cyanocharis* n. gen., *C. valga* n. sp. Brazil. Needham, J. G. Washington, D.C., Proc. Biol. Soc., 16, 1903, (55-58).

*Diaphlebia nexans* n. sp. S. America. Calvert, P. P. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (182-184).

*Disparoneura cellularis* n. sp. Njassa. Grünberg. Berlin, SitzBer. Ges. natf. Freunde, 1902, (230-237).

*Epigomphus* nn. spp. Calvert, P. P. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (188).

*Gomphus* spp. Calvert, P. P. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 12, 1901, ([65]-73, with pl.), [reprint], Philadelphia, Cont. Zool. Lab. Univ. Pa., 1901, 1902, ([65]-73, with pl.).

——— *hybridus* n. sp. Williamson, E. B. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (47-49).

——— *sordidus* × *graslinellus* hybrid. Williamson, E. B. l.c. 14, 1903, (253-258, with pl.).

*Gynacantha* nn. spp. Njassa. Grünberg. Berlin, SitzBer. Ges. natf. Freunde, 1902, (230-237).

*Hagenius brevistylus*. New Jersey. Woodham, J. G. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (159).

*Hemianax ephippiger* Burm., taken at Devonport in February. McLachlan, R. Ent. Mag., London, 39, 1903, (96).

*Hemicordulia assimilis* Hagen-Sélys, Beschreibung. Förster, F. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (542).

*Hetaerina titia*, variation. Calvert, P. P. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (192-193).

*Huonio* n. gen. verwandt mit *Nannophlebia*, *H. epinephela*, *H. thalassophila* nn. spp. Förster, F. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (515-520).

*Hydrobasileus brevistylus* var. *papuanus* n. var. Förster, F. l.c. (528-529).

*Ichnura barberi* n. sp. United States. Currie, R. P. Washington, D.C., Proc. Ent. Soc., 5, 1903, (302).

——— *granti* n. sp. McLachlan, R. Nat. Hist. Sokotra, (402).

*Jagoria* nn. spp. Förster, F. Insektenbörse, Leipzig, 20, 1903, (245).

*Lestes*, ponte. Giard, A. Feuille jeunes natural., Paris, (sér. 4), 33, 1903, (189-192).

*Lestes eurinus*. New Jersey. Calvert, P. P. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (158).

——— *uncatus* in Iowa. Hoag, M. E. l.c. 13, 1902, (88-89).

*Mecitogaster garloppi* n. sp. Förster, F. Insektenbörse, Leipzig, 20, 1903, (355-356).

*Micronympha bilobata* n. sp. Njassa. Grünberg. Berlin, SitzBer. Ges. natf. Freunde, 1902, (230-237).

*Microtrigonia* n. gen. verwandt mit *Birónides*, *M. marsupialis* n. sp. Förster, F. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (524-527).

*Nannophlebia* Sélys, systemat. Beschreibung. Förster, F. l.c. (520-521).

*Neoneura* nn. spp. Mexico and Texas. Calvert, P. P. Biol. Centr.-Amer., London, 1903, (138-140).

*Nesotenia mysis* Sélys var. *puella* Först., *N. interrogata* Sélys ♀, Beschreibung, *N. cingulata* Kirby, *N. dahli* Ris, *N. lineata* Brauer, Faunistisch. Förster, F. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (529-533).

*Neurothemis* spp., *N. martini* n. sp. Krüger, L. Stettiner ent. Ztg., 64, 1903, (248-291).

*Notogomphus nyassicus* n. sp. Njassa. Berlin, SitzBer. Ges. natf. Freunde, 1902, (230-237).

*Olpogastra fälleborni* n. sp. Njassa. Grünberg. l.c. (230-237).

*Orthetrum feniceli* Först., *O. villosocittatum* Brauer, Beschreibung. Förster, F. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (537-540).

*Palaeargia* n. subgen. verwandt mit *Argia*, *P. flavovittata* Sélys, Beschreibung. Förster, F. l.c. (549-552).

*Palaemnema* spp., *P. domina* n. sp. Mexico. Calvert, P. P. Biol. Centr.-Amer., London, 1903, (135-137).

*Palpopleura callista* n. sp. Njassa. Grünberg. Berlin, SitzBer. Ges. natf. Freunde, 1902, (230-237).

*Platynemis pennipes*, Pall. Sul valore sistematico delle varietà di [questa] specie (sunto). Bentiveglio, [T.]. Mon. zool. ital., Firenze, 13, 1902, (Supplemento), (22).

*Protoneura*, old and new species. Central America. **Calvert**, P. P. Biol. Centr.-Amer., London, 1903, IV, pt. 4, (140-144).

*Pseudagrion lindicum* n. sp. **Njassa**. **Grünberg**, Berlin, Sitzber. Ges. natf. Freunde, 1902, (230-237).

*Rhinocypha* nn. spp. **Förster**, F. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (546-548).

*Somatochlora provocans* n. sp. New Jersey. **Calvert**, P. P. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (39-77).

*Synthemis primigenia* n. sp. **Förster**, F. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (542-548).

*Telagrion? dasekii* n. sp. New Jersey. **Calvert**, P. P. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (36).

North Carolina. **Brimley**, C. S. l.c. (335-336).

*Thore williamsoni* n. sp. **Förster**, F. Insektenbörse, Leipzig, 20, 1903, (355-356).

## TRICHOPTERA.

### GENERAL.

**Klapálek**. Über die Morphologie der Genitalsegmente und Genitalanhänge bei den Trichopteren. I. Die Familien *Phycophilidae*, *Philopotamidae* und *Hydroptylidae*. Prag, Rozpr. Česká Ak. Frant. Jos., 11, 1902, Nr. 35, (39, 2 Taf.).

Trichoptera, Morphologie der Geschlechtsanhänge . . . die Morphologie der Körperringe und Geschlechtsanhänge bei Trichopteren. I. Deskript. Teil. Familien *Hydropsychidae*, *Molannidae*, *Leptoceridae*, *Phryganeidae*, *Sericostomatidae*, *Limnophilidae*. II. Vergleich. Teil (böhmisch). l.c. 12, 1903, Nr. 43, (62, 2 Taf.).

**Needham**, J. G. Remarks on Hydroptilid larvae and their metamorphosis. Zool. Anz., Leipzig, 27, 1903, (108-110).

**Shaw**, E. Trichoptera in Lincolnshire and Nottinghamshire. Ent. Mag., London, 39, 1903, (91-95).

**Silfvenius**, A[ntti] J[ohannes]. [Über in Wasser lebenden Schmetterlingen und auf Land lebenden Trichopteren.] (Finnisch) *Iuonnon Ystävä*, Helsingfors, 1903, 6-8, (125-128).

**Strand**, E. Trichoptera and Neuroptera-Planipennia collected in Norway. (Norw.) Entomol. Tidskr., Stockholm, 22, 1901, (93-96).

**Ulmer**, Georg. Beiträge zur Metamorphose der deutschen Trichopteren. [Forts.] Allg. Zs. Ent., Neudamm, 8, 1903, (11-15, 70-73, 90-93, 209-211, 315-316).

Ueber das Vorkommen von Krallen an den Beinen einiger Trichopterenpuppen. l.c. (261-265).

Zur Trichopteren-Fauna von Thüringen und Harz. (Mit Beschreibung einiger neuer Metamorphose-Stadien.) l.c. (341-350).

Zur Trichopteren-Fauna von Hessen. l.c. (397-406).

Weitere Beiträge zur Metamorphose der deutschen Trichopteren. Stettiner ent. Ztg, 64, 1903, (179-226, mit 3 Taf.).

### SPECIAL.

*Anabolina* n. gen., *A. diversa* n. sp. Arizona. **Banks**, N. Washington, D.C., Proc. Ent. Soc., 5, 1903, (244).

*Asynarchus pallidus* n. sp. **Banks**, N. New York, N.Y., J. Ent. Soc., 11, 1903, (242).

*Chimarra angustipennis* n. sp. Arizona. **Banks**, N. Washington, D.C., Proc. Ent. Soc., 5, 1903, (242).

*Glossoma boltoni*, Analkiemer bei den Larven. **Thienemann**, A. Zool. Anz., Leipzig, 27, 1903, (125-129).

*Glyptotaelius bellus* n. sp. **Banks**, N. New York, N.Y., J. Ent. Soc., 11, 1903, (241).

*Homophylax nevadensis* n. sp. **Banks**, N. l.c. (242).

*Hydropsyche*, larvae. **Simpson**, C. B. Washington, D.C., Proc. Ent. Soc., 5, 1903, (93-94, with figs. 4 and 5, p. 95).

*analis* n. sp. **Banks**, N. l.c. (243).

*divisa* n. sp. Arizona. **Banks**, N. Washington, D.C., Proc. Ent. Soc., 5, 1903, (244).



*Hydroptila insubrica* n. sp. Schweiz.  
 Ris, F. Schaffhausen, Mitt. Schweiz.  
 Entomol. Ges., 11, 1903, (16).

*Ithytrichia lamellaris*, Eaton, eine  
 merkwürdige Hydroptiliden - Larve.  
 Lauterborn, R[obert] und R[imsky-]  
 Korsakow, M. Zool. Anz., Leipzig, 28,  
 1903, (280-288).

*Leptocerus floridanus* n. sp. Banks,  
 N. New York, N.Y., J. Ent. Soc., 11,  
 1903, (242).

*Limnephilus indivisus*. Simpson, C. B.  
 Washington, D.C., Proc. Ent. Soc., 5,  
 1903, (98-100).

*Mystrophora* Klapálek, note on the  
 genus. Molachlan, R. Ent. Mag.,  
 London, 39, 1903, (31-32).

*Neophylax fuscus* n. sp. Banks, N.  
 New York, N.Y., J. Ent. Soc., 11, 1903,  
 (242).

*Pellopsyche* n. gen., *P. signata* n. sp.  
 Banks, N. l.c. (243).

#### LIST OF NEW GENERA AND SPECIES.

*ACANTHACLISIS* [Planipennia].

— *lineata*. Kirby. 103.

*AGRIOCNEMIS* [Odonata].

— *consimilis*. Grünberg. 89.

*Albardia* n. gen. [Neuroptera]. Weele.  
 214.

— *furcata*. Weele. 214.

*Allochrysa* n. gen. [Planipennia].  
 Banks. 5.

— *parvula*. Banks. 5.

*Alogopteron* n. gen. [Locustidae]. Rehn.  
 167.

— *carribbeum*. Rehn. 167.

*Anabolina* n. gen. [Trichoptera].  
 Banks. 4.

— *diversa*. Banks. 4.

*ANCISTROGASTER* [Forficulidae].

— *burri* n. nom. Kirby. 100.

— *javanus*. de Bormans. 29.

*ANISOLABIS* [Forficulidae].

— *dubronii* n. nom. Kirby.  
 100.

— ? *incerta*. de Bormans. 29.

*Aphonomorphus* n. nom. [Gryllidae].  
 Rehn. 169.

*APTENOPEDES* [Acridiidae].

— *clara*. Rehn. 161.

*APTERYGIDA* [Forficulidae].

— *buscki*. Rehn. 159.

*ARCHIMANDRITA* [Blattidae].

— *tessellata*. Rehn. 160.

*ARCHIPSOCUS* [Psocidae].

— *recens*. Enderlein. 73.

*Archoblattina*† n. nom. [Blattidae].  
 Sellards. 183.

*Arenivaga* n. subgen. [Blattidae]. Rehn.  
 156.

*ASTNARCHUS* [Trichoptera].

— *pallidus*. Banks. 10.

*Axinopsocus* n. gen. [Psocidae]. Ender-  
 lein. 71.

— *microps*. Enderlein. 71.

*Biros* n. gen. [Locustidae]. Bolivar. 17.

— *atrospinosa*. Bolivar. 17.

— *carinata*. Bolivar. 17.

*Bironides* n. gen. [Odonata]. Förster.  
 77.

— *superstes*. Förster. 77.

*BLABERUS* [Blattidae].

— *distanti*. Kirby. 101.

*BLATTA* [Blattidae].

— *anceps*. Krauss. 107.

— *brunnei*. Kirby. 101.

— *secura*. Krauss. 107.

*BLATTELLA* [Blattidae].

— *patida*. Rehn. 160.

— *spectativa*. Rehn. 160.

— *titania*. Rehn. 160.

*BRACHYNEMURUS* [Planipennia].

— *assimilis*. Banks. 3.

— *barberi*. Currie. 60.

— *cockerelli*. Banks. 6.

— *delicatulus*. Currie. 60.

— *dissimilis*. Banks. 3.

— *dorsalis*. Banks. 10.

— *hubbardii*, var. *nubeculi-*  
*pennis* n. var. Currie. 60.

— *intermedius*. Currie. 60.

— *schwarzi*. Currie. 60.

— *singularis*. Currie. 60.

— *tezanus*. Banks. 3.

— *yavapai*. Currie. 60.

*CACONEURA* [Odonata].

— *torrenticola*. Förster. 77.

*CACOZELUS* [Phasmidae].

— *semoni*. Krauss. 107.

- CAECILIUS** [Psocidae].  
 — *angustus*. Enderlein. 73.  
 — *annulicornis*. Enderlein. 73.  
 — *australis*. Enderlein. 73.  
 — *ceylonicus*. Enderlein. 73.  
 — *globiclypeus*. Enderlein. 73.  
 — *himalayanus*. Enderlein. 73.  
 — *luridus*. Enderlein. 73.  
 — *macrops*. Enderlein. 73.  
 — *macrostigma*. Enderlein. 73.  
 — *maculistigma*. Enderlein. 73.  
 — *muggenburgi*. Enderlein. 73.  
 — *notoguinensis*. Enderlein. 73.  
 — *pinicola*. Banks. 10.  
 — *pubes*. Enderlein. 69.  
 — *pygmaus*. Enderlein. 73.  
 — *thiemei*. Enderlein. 69.  
 — *unicolor*. Enderlein. 73.
- CALLIBAETES** [Ephemeridae].  
 — *skokiana*. Needham. 145.
- Callistoptera** n. gen. [Psocidae]. Enderlein. 73.  
 — *anna*. Enderlein. 73.
- CALOLAMPRA** [Blattidae].  
 — *cicatricosa*. Rehn. 160.  
 — *hamiltoni*. Rehn. 160.  
 — *tepperi*. Kirby. 101.
- CARACSIUS** [Phasmidae].  
 — *irregulariterlobatus*. Krauss. 107.
- CARCINOPHORA** [Forficulidae].  
 — *bolitiana*. de Bormans. 29.
- CATANTOPS** [Acridiidae].  
 — *debilis*. Krauss. 108.
- CATARA** [Blattidae].  
 — *minor*. Krauss. 107.
- CEBRASTIPSOCUS** [Psocidae].  
 — *subcostalis*. Enderlein. 73.
- Charisoma** n. gen. [Locustidae]. Bolivar. 17.  
 — *karachi*. Bolivar. 17.
- CHAULIODES** [Planipennia].  
 — *concolor*. Davis. 62.  
 — *flicornis*. Banks. 4.  
 — *minus*. Davis. 62.
- CHELIDURA** [Forficulidae].  
 — *peringueyi*. Burr. 30.
- CHELIPHLEBIA** [Neuropteroidea].  
 — *extensa* †. Melander. 136.
- CHELISOCHES** [Forficulidae].  
 — *malgachus*. de Bormans. 29.  
 — *varicornis*. de Bormans. 29.  
 — *vittatus*. Burr. 30.
- CHINARBHA** [Trichoptera].  
 — *angustipennis*. Banks. 4.
- CHLOROCNEIS** [Odonata].  
 — *inepta*. Grünberg. 89.
- Chromagrion** n. gen. [Odonata]. Needham. 146.
- CHRYSOPA** [Planipennia].  
 — *arizonensis*. Banks. 5.  
 — *azteca*. Banks. 10.  
 — *cockerelli*. Banks. 5.  
 — *columbiana*. Banks. 5.  
 — *medialis*. Banks. 5.  
 — *schwarzii*. Banks. 5.
- CIRPULA** [Acridiidae].  
 — *sculpta*. Krauss. 107.
- CONOCEPHALUS** [Locustidae].  
 — *bruneri*. Blatchley. 16.
- Copostigma** n. gen. [Psocidae]. Enderlein. 73.  
 — *brevistylus*. Enderlein. 73.  
 — *dorsopunctatum*. Enderlein. 73.  
 — *fumatum*. Enderlein. 73.  
 — *indicum*. Enderlein. 73.  
 — *maculiceps*. Enderlein. 73.  
 — *palliatum*. Enderlein. 73.
- COPTOTETIX** [Acridiidae].  
 — *inflatus*. Krauss. 107.
- CORYDALIS** [Planipennia].  
 — *armata*. Davis. 62.  
 — *perutiana*. Davis. 62.  
 — *texana*. Banks. 10.
- CORYDIA** [Blattidae].  
 — *hilaris*. Kirby. 101.  
 — *purpuralis*. Kirby. 101.  
 — *tonkinensis*. Kirby. 101.
- Coryphaeschna** n. gen. [Odonata]. Williamson. 222.
- CTENISOLABIS** [Forficulidae].  
 — *togoensis*. Verhoeff. 210.
- Cyanocharis** n. gen. [Odonata]. Needham. 143.  
 — *valga*. Needham. 143.
- CYLINDROMENA** [Phasmidae].  
 — *aenea*. Krauss. 107.

- Cymatopsocus** n. gen. [Psocidae].  
 Enderlein. 73.  
 ——— *opalinus*. Enderlein. 73.
- CYRTOPHYLLUS** [Locustidae].  
 ——— *floridensis*. Beutenmüller. 14.
- Deinopsocus** n. gen. [Psocidae]. Enderlein. 69.  
 ——— *spheciophilus*. Enderlein. 69.
- Dendroneura** n. gen. [Psocidae].  
 Enderlein. 69.  
 ——— *ranulosa*. Enderlein. 69.
- DEROCALYMA** [Blattidae].  
 ——— *stigmosa*. Krauss. 108.
- DEROPELTIS** [Blattidae].  
 ——— *kachoskii*. Adelung. 1.  
 ——— *pallidipennis*. Adelung. 1.
- DEROPLATYS** [Mantidae].  
 ——— *shelfordi*. Kirby. 102.
- DIAPHEROMERA** [Phasmidae].  
 ——— *arizonensis*. Caudell. 50.
- DIAPHLEBIA** [Odonata].  
 ——— *nexans*. Calvert. 44.
- DICELLONOTUS** [Blattidae].  
 ——— *insularis*. Kirby. 101.  
 ——— *laevis*. Kirby. 101.
- DICOERYPHA** [Locustidae].  
 ——— *furcifera*. Krauss. 107.
- DIOTYONEURA** [? Phasmidae].  
 ——— *clarinercis*†. Melander. 136.
- DICTYOPTERYX** [Perlidae].  
 ——— *dovreensis*. Kempny. 99.
- DIECONEURA** [Neuropteroidea].  
 ——— *maxima*†. Melander. 136.
- DIPLATYS** [Forficulidae].  
 ——— *ridleyi*. Kirby. 100.
- DISPARONEURA** [Odonata].  
 ——— *cellularis*. Grünberg. 89.
- Duryodana** n. gen. [Blattidae]. Kirby. 101.
- Echinopsocus** n. gen. [Psocidae].  
 Enderlein. 73.  
 ——— *erinaceus*. Enderlein. 73.
- ECHINOPSALIS** [Forficulidae].  
 ——— *brevibractea*. Rehn. 157.
- ECTOPSOOCUS** [Psocidae].  
 ——— *denudatus*. Enderlein. 73.
- ELIMAEA** [Locustidae].  
 ——— *klinkhardti*. Krausze. 111.  
 ——— *maculosa*. Krausze. 110.  
 ——— *mannhardti*. Krausze. 110.  
 ——— *nigerrima*. Krausze. 110.  
 ——— *rubicunda*. Krausze. 110.  
 ——— *schmidtii*. Krausze. 110.  
 ——— *theopoldi*. Krausze. 109.
- EMBIA** [Embiidae].  
 ——— *taurica*. Kuznecov. 116.
- ENCOPTOLOPHUS** [Acridiidae].  
 ——— *subgracilis*. Caudell. 51.
- EPIGOMPHUS** [Odonata].  
 ——— *llama*. Calvert. 44.  
 ——— *quadracies*. Calvert. 44.  
 ——— *tumefactus*. Calvert. 44.
- EPILAMPRA** [Blattidae].  
 ——— *abortivipenna*. Rehn. 160.  
 ——— *lucifuga*. Rehn. 160.
- EPIPSOCUS** [Psocidae].  
 ——— *funestus*. Enderlein. 73.  
 ——— *fuscifasciatus*. Enderlein. 73.  
 ——— *marginatus*. Enderlein. 73.  
 ——— *murcus*. Enderlein. 73.  
 ——— *villosus*. Enderlein. 73.
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- Eremochrysa** n. gen. [Planipennia].  
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 ——— *hageni*. Banks. 5.
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 ——— *acutipennis*. de Saussure. 181.  
 ——— *birmanicus*. de Saussure. 181.  
 ——— *flavipes*. de Saussure. 181.  
 ——— *humbertianus*. de Saussure. 181.
- ERUOICUS** [Acridiidae].  
 ——— *nebulosus*. de Saussure. 181.  
 ——— *pictus*. de Saussure. 181.
- EUCAENUS** [Neuropteroidea].  
 ——— *attenuatus*†. Melander. 136.  
 ——— *mazonus*†. Melander. 136.
- EUMASTAX** [Acridiidae].  
 ——— *dentatus*. de Saussure. 181.
- EURYCNEMA** [Phasmidae].  
 ——— *cercata*. Krauss. 107.
- EURYOERYPHA** [Locustidae].  
 ——— *cuspidata*. Krauss. 108.

- EUSCHMIDTIA** [Acridiidae].  
 ——— *finoti*. de Saussure. 181.  
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 ——— *lobipennis*. de Saussure. 181.  
 ——— *parvipennis*. de Saussure. 181.  
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 ——— *versicolor*. de Saussure. 181.
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 ——— *brunnei*. Finot. 74.  
 ——— *kirbyi*. Finot. 74.  
 ——— *kraussi*. Finot. 74.  
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 ——— *scudleri*. Finot. 74.
- FALCICOLA** n. gen. [Gryllidae]. Rehn.  
 ——— 169.  
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 ——— *caucasica*. Semenov. 185.  
 ——— *metrica*. Rehn. 157.  
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 ——— *parvramosa*. Enderlein. 73.  
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 ——— *bellus*. Banks. 10.
- GOMPHUS** [Odonata].  
 ——— *hybridus*. Williamson. 219.
- GONOLABINA** n. gen. [Forficulidae]. Verhoeff. 210.  
 ——— *kuhlgatsi*. Verhoeff. 210.
- GONOLABIS** [Forficulidae].  
 ——— *inca*. Burr. 30.
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 ——— *noctivaga*. Krauss. 108.
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 ——— *auriculata*. Krauss. 107.
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 ——— *alogus*. Rehn. 155.  
 ——— *americanus*. Blatchley. 16.  
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- GYNACANTHA** [Odonata].  
 ——— *manderica*. Grünberg. 89.  
 ——— *villosa*. Grünberg. 89.
- HABROPHLEBIA** [Ephemeridae].  
 ——— *americana*. Banks. 7.
- HAGENIELLA** n. gen. [Psocidae]. Enderlein. 73.  
 ——— *lunata*. Hagen. 73.  
 ——— *molesta*. Hagen. 73.  
 ——— *zonata*. Hagen. 73.
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 ——— *abdominalis*. Kirby. 101.  
 ——— *horologica*. Kirby. 101.  
 ——— *immaculata*. Kirby. 101.
- HELIASTUS** [Acridiidae].  
 ——— *guanieri*. Caudell. 49.
- HEMEROBUS** [Planipennia].  
 ——— *barberi*. Banks. 4.  
 ——— *schwarzi*. Banks. 4.  
 ——— *umbratus*. Banks. 4.
- Hemicaecilius** n. gen. [Psocidae].  
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 ——— *insubrica*. Ris. 176.
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 ——— (?) *granti*. McLachlan.  
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 ——— *portoricensis*. Rehn. 159.
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 — *antipoda*. Kirby. 101.  
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 — *hastifera*. Rehn. 160.
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 — *grata*. Rehn. 160.  
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 — *pavonacea*. Rehn. 160.
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- *atriceps*. Kirby. 100.  
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 — — var. Snodgrass. 194.  
 — *melanocera* var. *immaculata*.  
 — — n. var. Snodgrass. 194.  
 — — var. *lineata* n.  
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 — *punctipennis*. Bolivar. 17.

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- *morrisoni*. Davis. 62.  
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- *aestivalis*. Eaton. 65.

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- *procacsi*. Calvert. 40.

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- *aculeata*. de Bormans. 29.  
 — *dohrni* n. nom. Kirby. 100.  
 — *flatipennula*. Rehn. 157.

**SPHINGOLABIS** [Forficulidae].

- *brunneri*. de Bormans. 29.

**SPHINGONOTUS** [Acridiidae].

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 — — var. *barringtonensis* n. var. Snodgrass. 194.  
 — — var. *charlesensis*  
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 — — var. Snodgrass. 194.  
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- *levisi*. de Bormans. 29.

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- *terrenus*. Rehn. 164.

**STENOPSOCUS** [Psocidae].

- *tonkinensis*. Enderlein. 73.

**stigmatopathus** n. gen. [Psocidae]. Enderlein. 73.

- *horváthi*. Enderlein. 73.

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- *mescalero*. Rehn. 155.

**STYLOPTGA** [Blattidae].

- *semoni*. Krauss. 107.



- SYNTHESIS** [Odonata].  
 ——— *primigenia*. Förster. 77.
- SYNTOMAPTERA** [Blattidae].  
 ——— *tepperi*. Kirby. 101.
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 ——— *ingens*. Enderlein. 73.
- TAUCHIRA** [Phasmidae].  
 ——— *lucida*. Krauss. 107.
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 ——— (?) *daeckii*. Calvert. 40.
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 ——— *williamsoni*. Förster. 76.
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 ——— Kirby. 101.  
 ——— *latipennis*. Kirby. 101.
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- TROCTES** [Psocidae].  
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# 4003-4031 HEMIPTERA (or RHYNCHOTA), EXCL. ANOPLURA, WHICH ARE PLACED IN 3603.

## TITLES.

- Alwood**, William B. A note on the oviposition of the seventeen-year locust (*Cicada septendecim*). Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., No. 40, 1903, (75-77). [4019 4031]. 1
- Ball**, Elmer [Darwin]. Descriptions of some new tree hoppers [*Telanona*] from the United States. Washington, D.C., Proc. Biol. Soc., 16, 1903, (177-182, with pl.). Separate. 23.3 cm. [4027 gh 4031]. 2
- Banks**, Nathan. Additions to the list of New York Pentatomidae. New York, N.Y., J. Ent. Soc., 11, 1903, (227). [4027 gg 4031]. 3

**Bergroth**, E. Ueber *Haploprocta pustulifera* Stål. Rev. Russ. Ent., Jaroslavl, 3, 1903, (32). [4031]. 4

**Bioletti**, F. T. The phylloxera of the vine. Agric. Exp. Sta., California, Berkeley, Bull. No. 131, 1901, (16, with fig.). 23 cm. [Review] Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., 13, 1901, (372). [4031]. 5

**Brandicourt**, Virgile. Pucerons et fourmis. Nature, Paris, 30, (2<sup>e</sup> semest.), 1902, (202). [4031 4019 4631 4619]. 6

**Bredt**, G. Neue malayische Homopteren aus der Familie *Cercopidae*. Soc. Entomol., Zürich, 17, 1903, (51-52, 58-59). [4027 ia e ej 4031]. 7

——— Einige Homopteren aus der Verwandtschaft von *Hyphauchenia* Germ. Soc. Entomol., Zürich, 17, 1903, (90-92). [4027 eg 4031]. 9

——— Neue tropische Wasserschläufer der Gattung *Ptilomera*. Soc. Entomol., Zürich, 17, 1903, (147-148). [4027 e 4031]. 10

——— Neue Raubwanzen. Soc. Entomol., Zürich, 17, 1903, (169-171). [4027 e 4031]. 11

——— Neue Hemipterenarten aus Südost-Asien. Soc. Entomol., Zürich, 18, 1903, (33-35). [4027 e 4031]. 12

——— Ueber einige Tetyriden. Soc. Entomol., Zürich, 18, 1903, (57-59). [4027 eg ic he 4031]. 13

——— Einige neue Südamerikanische Ectrichodiinen. Soc. Entomol., Zürich, 18, 1903, (65). [4027 h 4031]. 14

——— Ein neuer *Hyperoncus* aus Java. Soc. Entomol., Zürich, 18, 1903, (66). [4027 eg 4031]. 15

——— Zwei neue *Chrysocoris*-Formen. Soc. Entomol., Zürich, 18, 1903, (74-75). [4027 e 4031]. 16

——— Eine termitophile *Lygaeide*. Soc. Entomol., Zürich, 18, 1903, (75). [4019 4031]. 17

——— Ueber die Hopfenwanze und andere Hopfenschädlinge aus der Ordnung der Wanzen. Soc. Entomol., Zürich, 18, 1903, (81-82). [4019 4031]. 8

——— Eine neue *Tetrozia* aus Africa. Soc. Entomol., Zürich, 18, 1903, (82-83). [4027 fe 4031]. 18

**Breddin, G.** *Catadipson* n. gen. Acanthosominorum (Hemiptera Heteroptera). Soc. Entomol., Zürich, **18**, 1903, (91-91). [4027 fe 4031]. 19

———. Einige neue Homopteren. Soc. Entomol., Zürich, **18**, 1903, (91-92, 98-99). [4027 ia ed eg 4031]. 20

———. Eine neue Reduviinenart aus Westafrika. Soc. Entomol., Zürich, **18**, 1903, (99-100). [4027 fe 4031]. 21

———. *Daraxa carnifex* n. sp. Soc. Entomol., Zürich, **18**, 1903, (100). [4027 hg 4031]. 22

———. Einige Afrikanische Heteropteren. Soc. Entomol., Zürich, **18**, 1903, (107-108). [4027 fe 4031]. 23

———. Südamerikanische Raubwanzen. Soc. Entomol., Zürich, **18**, 1903, (108, 113-115). [4027 h 4031]. 24

———. Einige afrikanische Rhynchoten. Soc. Entomol., Zürich, **18**, 1903, (115-116). [4027 fe 4031]. 25

———. Neue Rhynchoten aus den Anden. Soc. Entomol., Zürich, **18**, 1903, (122-124). [4027 hm 4031]. 26

———. Neue Arten der Gattung *Colobasias* Bredd. Soc. Entomol., Zürich, **18**, 1903, (131). [4027 hg 4031]. 27

———. Neue Arten der Gattung *Edessa*. Soc. Entomol., Zürich, **18**, 1903, (131-132). [4027 h 4031]. 28

———. Neue Rhynchoten Ausbeute aus Südamerika. Soc. Entomol., Zürich, **18**, 1903, (117-149). [4031 4027 h]. 29

———. Neue Raubwanzen. Soc. Entomol., Zürich, **18**, 1903, (177-178). [4027 e fe ib ia 4031]. 30

———. Neue Gattungen und Arten der Reduviidengruppe *Ectrichodiinae*. Zool. Anz., Leipzig, **26**, 1903, (508-514). [4031]. 31

———. Ad cognitionem gen. *Cosmosecartae* Stål [Hemipt. homopt.]. D. ent. Zs., Berlin, **1903**, (81-100). [4031]. 32

———. Neue paläotropische Reduviinen. Berlin, SitzBer. Ges. natf. Freunde, **1903**, (111-129). [4031]. 33

———. Missdeutete und neue Hemipteren-Arten der indo-austr. (n 2-9053)

lischen Fauna. Berlin, SitzBer. Ges. natf. Freunde **1903**, (195-223). [4031]. 34

**Breddin, G.** Beiträge zur Hemipterenfauna der Anden. Berlin, SitzBer. Ges. natf. Freunde, **1903**, (366-383). [4027 hm 4031]. 35

**Britton, W. E.** San José scale insect: Its appearance and spread in Connecticut. Connecticut (State station), New Haven, Bull. No. **135**, 1901, (14, with 5 pls.). 23 cm. [Review] Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., **13**, 1902, (766-767). [4027 gg 4031]. 36

**Buckton, G. B.** A monograph of the *Membracidae*. To which is added a paper entitled: Suggestions as to the meaning of the shapes and colours of the *Membracidae* in the struggle for existence, by E. B. Poulton. London, (xii + 293 pp., 60 pls.) Pp. 181 to 236 were published in 1903. Poulton's contribution is on pp 273-285. [4019 4031]. 37

**Bueno, J. R. de la Torre.** A preliminary list of the *Pentatomidae* within fifty miles of New York. New York, N.Y., J. Ent. Soc., **11**, 1903, (128-129). [4027 gg 4031]. 38

———. Brief notes toward the life history of *Pelocoris femorata* Pal. B. with a few remarks on habits. New York, N.Y., J. Ent. Soc., **11**, 1903, (166-173). [4019 4031]. 39

———. Note on *Pentatomidae* [Correction to New Jersey list in author's "The *Pentatomidae* within fifty miles of New York."]. New York, N.Y., J. Ent. Soc., **11**, 1903, (228). [4027 gg 4031]. 40

**Buffa, Pietro.** Coccidei parassiti della vite. Bollettino di Entomologia agraria, Padova, **9**, 1902, (3-11). [4003 4031]. 41

**Candell, A[ndrew] N[elson].** The genus *Sinea* of Amyot and Serville. New York, N.Y., J. Ent. Soc., **9**, 1901, (1-11, with pl.). [4031]. 42

**Champion, G. C.** An entomological excursion to Bejar, Central Spain. London, Trans. Ent. Soc., **1903**, (165-192). [4027 dg 4827 dg]. 43

**Oholodkovskij**, Nikolaj Aleksandrovič. Zweites Verzeichnis der Aphidensammlung des zoologischen Kabinetes des St. Petersburger Forst-Instituts. (Russ.) St. Petersburg, Izv. Leśn. Inst., **8**, 1902, (49-59, mit 1 Taf.). [4019 4027 4031]. 44

——— Aphidologische Mittheilungen. Zool. Anz., Leipzig, **26**, 1903, (258-263, mit 1 Taf.). [4031]. 45

——— Aphidologische Mittheilungen. 20: Eine auf Birnbäumen saugende *Phylloxera*-Art. Zool. Anz., Leipzig, **27**, 1903, (118-119). [4031]. 46

**Clément**, A. L. Un parasite des mandarines. Nature, Paris, (1<sup>re</sup> sem.), **31**, 1903, (243-245, av. fig.). [4031 4019 4015]. 47

[**Cockerell**, Theodore Dru Alison]. [Additional records of Hemiptera from Beulah, New Mexico.] Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (113). [4027 gi 4031]. 49

——— *Aphididae* [from Beulah, New Mexico]. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (114-116). [4027 gi 4031]. 50

——— *Diaspis piricola*. [Nomenclature]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **12**, 1901, (27). [4031]. 51

——— *Chrysomphalus agavis* as a pest [in Mexico]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (15). [4027 ha 4031]. 52

——— *Mytilaspis beckii* in California. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (17). [4027 gi 4031]. 53

——— *Aspidiotus sacchari* in Java. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (24). [4027 eg 4031]. 54

——— *Aspidiotus hederæ* in Australia. [Criticism of paper by J. Lidgett; *A. hederæ* same as *A. nerii*]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (89). [4027 if 4031]. 55

——— *Aleurodes (Trialeurodes) vitrinellus* Ckll. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **16**, 1903, (241). [4031]. 56

[**Cockerell**, Theodore Dru Alison]. A new Aphid on thistle [*Aphis ochrocentri* n. sp.]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (248). [4031]. 57

——— A new plant-louse [*Aphis teirapteralis* n. sp.] from southern California [with note on the ant which attends it, new form of *Cremastogaster*]. Los Angeles, Bull. So. Cal. Acad. Sci., **1**, 1902, (40-41). [4031 4831]. 58

——— New and little-known American Coccidae. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (155-165). [4027 g 4031]. 59

——— North American bees and a new Homopteron. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (442-455). [4031 4627 g 4631]. 60

——— Five new Coccidae from Mexico. Entomologist, London, **36**, 1903, (45-48). [4027 ha 4031]. 61

——— A new Coccid of the genus *Asterolecanium* from Egypt. Entomologist, London, **36**, 1903, (112). [4027 fb 4031]. 62

——— A new Coccid from Madeira, allied to *Coccus tuberculatus* Bouché. Entomologist, London, **36**, 1903, (261-262). [4027 lb 4031]. 63

——— v. Cockerell, Wilmatte Porter.

[**Cockerell**, Wilmatte Porter, and **Cockerell**, Theodore Dru Alison.] [A new Coccid from Beulah] [*Phenarococcus ripersioides* n. sp.]. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (112-113). [4027 gi 4031]. 48

**Coleman**, George A. Coccidae of the Coniferae, with the description of ten new species from California. New York, N.Y., J. Ent. Soc., **11**, 1903, (61-85, with pl.). [4027 gi 4031]. 64

**Conradi**, A. F. v. Weed C[larence] M[oores].

**Colougeat** v. Sabrazès.

**Distant**, W. L. Additions to the Rhynchotal fauna of Central America. London, Trans. Ent. Soc., **1903**, (525-527). [4027 hb 4031]. 65

——— On some undescribed Rhynchota. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (72-77). [4031]. 66

- Distant, W. L.** Rhynchotal notes. XVI. Heteroptera, Family *Reduviidae* (continued), *Apiomerinae*, *Harpactorinae* and *Nabinae*. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (203-213, 248-258); XVII. Heteroptera, Family *Reduviidae*, *ib.*, (352-367); XVIII. Heteroptera, **12**, 1903, (248-253); XIX. *ib.*, (469-480). [4027 *eb ff* 4031]. 67
- Undescribed oriental Rhynchota. Entomologist, London, **36**, 1903, (1-2). [4027 *e* 4031]. 68
- Rhynchotal Miscellanea. Parts I, II. Rhynchota from the Transvaal, Mashonaland and British Nyassaland. Cape Town, Ann. S. Afric. Mus., **3**, 1903, pt. II, (43-62). [4027 *ff fg* 4031]. 69
- The fauna of British India including Ceylon and Burma. Edited by W. T. Blanford. Rhynchota, Vol. II (Heteroptera), Pt. I, London, 1903, (X + 242). [4027 *ef* 4031]. 70
- Report on the Rhynchota. Part I, Heteroptera. Fascic. Malay. Zool. **2**, (219-272, pls XV, XVI). [4027 *eg* 4031]. 71
- Dominique, J.** Catalogue des Hémiptères (Hétéroptères, Homoptères, Psyllides) de la Loire-Inférieure. Nantes, Bul. soc. sci. nat., (sér. 2), **12**, 1902, (230). [4031 4027 *df*]. 72
- Embleton, Alice L.** *Cerataphis lataniae*, a peculiar Aphid. London, J. Linn. Soc. Zool., **29**, 1903, (90-107, pl. XII). [4019 4031]. 73
- Fernald, Mrs. Maria E** [Elizabeth (Smith)]. A catalogue of the *Coccidae* of the world. Special bulletin. Hatch experiment station of the Massachusetts agricultural college, Amherst, Mass., Bulletin, No. **88**, 1903, (360). 23 cm. [4031]. 75
- Fowler, W. W.** Rhynchota Homoptera. Biol. Centr.-Amer., London, **1903**, II, (293-316, pls. XX-XXI). [4031]. 76
- Froggatt, Walter W.** Australian *Psyllidae*. Part III. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, **28**, 1903, (315-337, with 2 pls.). [4027 *ic* 4031]. 77
- Woolly Aphis or American blight. Agric. Gaz., Sydney, N.S.W., **14**, 1903, (18-25, with 1 pl.). [4019 4031]. 78
- Cicadas ("Locusts") and their habits. Agric. Gaz., Sydney, N.S.W., **14**, 1903, (334-341, 418-425, with 2 pls.). [4019 4031]. 79
- Fry, H.** Animal sense perceptions. Zoologist, London, (Ser. 4), **6**, 1902, (392-393). [4019 4031]. 80
- Garber, J. E.** Dimorphism in *Blissus leucopterus*. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **5**, 1903, (330-335, with text fig.). [4023 4031]. 81
- Glard, A.** *Chlorita flavescens* Fab. (Réponse à M. L. Mercier). Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (33). [4031]. 82
- Gillette, Clarence** [Preston]. Identification of two of Fitch's species, viz., *Deltocephalus melsheimerii* and *Chlorotettix unicolor*. Psyche, Cambridge, Mass., **9**, 1901, (171-173). [4031]. 83
- Goding, F. W.** A Monograph of the Australian *Membracidae*. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, **28**, 1903, (2-41, with 1 pl.). [4027 *ic* 4031]. 84
- Gossard, H. A.** Review of the white fly [*Aleurodes citri*] investigation [in Florida] with incidental problems. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **31**, 1902, (68-74). [4003 4031]. 85
- The cottony cushion scale (*Icerya purchasi*). Agric. Exp. Sta., Florida, Lake City, Bull., No. **58**, 1901, (309-356, with 1 pl., 6 fig.); [review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., **13**, 1902, (472). [4003 4031]. 86
- Two peach scales. [*Aspidiotus perniciosus* and *Diaspis pentagona*]. Agric. Exp. Sta., Florida, Lake City, Bull., No. **61**, 1902, (469-498, with 4 pls.); [review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., **14**, 1903, (469-470). [4003 4031]. 87
- Green, E. E.** Description of a new Coccid. Calcutta, Ind. Mus. Notes, **5**, 1903, (63). [4031]. 88
- Remarks on Indian Scale Insects (*Coccidae*) with descriptions of new species. Calcutta, Ind. Mus. Notes, **5**, 1903, (93-103, with 3 pls.). [4031]. 89
- Guillaud, E.** La cochenille du Fusain. Toulon, Bul. soc. agricult., **1902**, (111-113). [Reproduit par le Réveil agricole]. [4019 4031]. 90

**Hansen, H. J.** The morphology and classification of the auchenorrhynchous Homoptera. Entomologist, London, **36**, 1903, (42-44, 64-67, 93-94). [4007 4031]. 91

**Heidemann, O[tto].** Notes on *Belonchilus numenius* Say. Washington, D.C., Proc. Ent. Soc., **5**, 1902, (11-12). [4031]. 92

Remarks on *Ligyrocoris constrictus* Say and *Perigenes fallax*, a new species. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (155-157). [4031]. 93

**Hertzog, Aug[ust].** Die Schildläuse, und deren Bekämpfung. Landw. Ztg, Halberstadt, **13**, 1901, (155-156). [4019 4031]. 94

**Hofer, J.** Beitrag zur Cocciden-Fauna der Schweiz. [nn. spp. von Kmo.] Schaffhausen, Mitt. Schweiz. Entomol. Ges., **10**, 1903, (474-483). [4027 di 4031]. 95

**Horváth, Géza.** Fauna Hemipterorum Serbiae. (Ungarisch) Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., **1**, 1903, (1-28). [4027 dl 4031]. 96

Conspectus specierum generis *Grophosoma*. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., **1**, 1903, (345-354). [4027 d 4031]. 97

*Pentatomidae novae extra-europaeae*. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., **1**, 1903, (400-409). [4027 e f 4031]. 98

Synopsis generis *Doratura* Sahlb. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., **1**, 1903, (451-459, Taf. XVII). [4031]. 99

Homoptera quinque nova ex Hungaria. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., **1**, 1903, (472-476). [4027 dk 4031]. 100

Adnotationes synonymicae de Hemipteris palaearcticis. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., **1**, 1903, (555-558). [4031]. 101

**Howard, L[eland] O[ssian].** On the habits of *Entilia sinuata* [in relation to ants]. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **30**, 1901, (75-78). [0219 4019 4031 4619 4631]. 102

**Hüber, Th.** Deutsche Sing-Cicaden. Stuttgart, Jahreshefte Ver. Natk., **59**, 1903, (LII-LIV). [4027 de 4031]. 103

Anhang (Inhaltsverzeichnis, Register, Berichtigung, Nachtrag) zum 1. Bd der Synopsis der deutschen Blindwanzen (Hemiptera Heteroptera. Fam. *Capsidae*). Stuttgart, Jahreshefte Ver. Natk., **59**, 1903, (187-226, mit 1 Taf.). [4031]. 104

**Jacobi, A.** Neue Homopteren aus Tonking. Berlin, SitzBer. Ges. natf. Freunde, **1902**, (20-25). [4027 ed 4031]. 105

*Heteropsaltria n. g.* Cicadarum stridulantium. Berlin, SitzBer. Ges. natf. Freunde, **1902**, (73-76). [4031]. 106

Singcicaden von Ost-Neuguinea. Berlin, SitzBer. Ges. natf. Freunde, **1903**, (10-15). [4027 ia 4031]. 107

**Jachontov, A. A.** Notice sur l'extension, dans la Russie centrale, de *Cicadetta montana* Scop. (Russ.) Rev. Russ. Ent., Jaroslavl', **3**, **1903**, (313). [4027 db]. 108

**Jakovlev, V. E.** Nouvelles espèces du genre *Phimodera* Germ. de la faune de la Russie. (Russ.) St. Petersburg, Hor. Soc. Ent. Ross., **36**, 1903, (183-191). [4027 db ea 4031]. 109

Les *Vachiria* Stål de la faune de l'Asie centrale. (Russ.) St. Petersburg, Hor. Soc. Ent. Ross., **36**, 1903, (199-203). [4027 ea 4031]. 110

Les Hémiptères - Hétéroptères du gouvernement d'Irkutsk. (Russ.) St. Petersburg, Hor. Soc. Ent. Ross., **36**, 1903, (317-324). [4027 ea 4031]. 111

Les *Neottiglossa* Curt. de la faune paléarctique. (Russ.) St. Petersburg, Hor. Soc. Ent. Ross., **36**, 1903, (325-331). [4027 db ea 4031]. 112

Hémiptères - Hétéroptères nouveaux de la faune paléarctique. IV. Rev. Russ. Ent., Jaroslavl', **3**, **1903**, (1-4). [4027 db ea 4031]. 113

Hémiptères - Hétéroptères nouveaux de la faune paléarctique. V. l.c. (81-84). [4027 db ea 4031]. 114

Hémiptères - Hétéroptères nouveaux de la faune paléarctique. VI. l.c. (191-195). [4027 db ea 4031]. 115

**Jakovlev, V. E.** Hémiptères-Hétéroptères nouveaux de la faune paléarctique. VII. l.c. (289-293). [4027 db ea 4031]. 116

— Hémiptères - Hétéroptères nouveaux de la faune paléarctique. VIII. l.c. (377-380). [4027 db ea 4031]. 117

**Jakowleff, B. E. v. Jakovlev, V. E.**

**Kellogg, V[ernon] I[ym]an.** Notes on California Coccidae, Aleurodidae, and Scolytidae. Washington, D.C., Bull. U.S. Dept. Agric. Div. Ent., No. 40, 1903, (83-84). [4027 gi 4031 4827 gi 4831]. 118

**King, Geo. B.** On the progress in the description of the Coccidae. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (255-258). [4031]. 121

— The seventeenth American Kermes (Coccidae). [K. arizonensis n. sp.]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (21-22). [4027 gi 4031]. 122

— The Coccidae of Ohio [with bibliography]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (204-206). [4027 gg 4031]. 123

— Some new Coccidae [nn. spp. in Ripseria and Phenacoccus]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (41-43). [4031]. 119

— The greenhouse Coccidae, II. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (152-156). [4031]. 120

**King v. Hofer, J.**

**Kirkaldy, G. W.** Miscellanea Rhynchotalia. No. 6. Entomologist, London, 36, 1903, (44); No. 7, ib., (179-181). [4019 4031]. 124

— Upon maternal solicitude in Rhynchota and other non-social insects. Entomologist, London, 36, 1903, (113-120). [4019]. 125

— On the nomenclature of the genera of the Rhynchota, Heteroptera and Auchenorrhynchos Homoptera [continuation]. Entomologist, London, 36, 1903, (213-216, 230-232). [4031]. 126

— Hemiptera. Nat. Hist. Sokotra, (381-394, pl. XXIII). [4027 ff 4031]. 127

**Koebele, A.** Report of Prof. Koebele on Lantana Scale [Orthezia insignis].

Honolulu, Hawaii, Rep. Com. Agric. Forestry, 1902, 1903, (54-65). [4027 nd 4031]. 128

**Köhler, A.** Ueber die Bildung des Chorions bei *Pyrrhocoris apterus*. (Vorläuf. Mitt.) Zool. Anz., Leipzig, 26, 1903, (633-636). [4015]. 129

**Kotinsky, Jacob.** The first North American leaf-galliaspine [*Cryptophyllaspis liquidambaris* n. sp.]. Washington, D.C., Proc. Ent. Soc., 5, 1903, (149-150). [4031 4027 gh]. 131

**Krulkovskij, L.** Nouveaux renseignements sur l'extension, dans la Russie d'Europe, de *Cicadetta montana* Scop. (Russ.) Rev. Russ. Ent., Jaroslavl', 3, 1903, (404). [4027 db]. 132

**Kuwana, S. J.** A new Coccid from California [*Pseudolecanium distictum* n. sp., with list of species and bibliography of *Pseudolecanium*]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (134-136). [4027 gi 4031]. 133

**Lambertie.** Notes sur quelques Hémiptères-homoptères nouveaux ou rares de la Gironde. Bordeaux, Actes soc. linn., 57, 1902, (Proc.-verb., CLXXII-CLXXIV). [4031 4027 df]. 134

— Note sur des Hémiptères-homoptères nouveaux et peu connus de la Gironde. Bordeaux, Actes soc. linn., (sér. 6), 57, 1902, (Procès - verb., LXXVIII-LXXXII, LXXXIV, LXXXV, CLXXII-CLXXIX). [4027 df 4031]. 135

— Note sur quelques Hémiptères-homoptères nouveaux ou peu connus de la Gironde. Bordeaux, Actes soc. linn., 58, 1903, (Proc.-verb., XXI-XXIV). [4031 4027 df]. 136

— Note sur quelques Hémiptères nouveaux ou rares pour la Gironde. Bordeaux, Actes soc. linn., 58, 1903, (Proc.-verb., XCVI-XCVIII). [4031 4027 df]. 137

**Lancelevée, Th.** Note sur la capture en Normandie d'une espèce rare d'Hémiptère-homoptère, la *Cicadetta montana* Scop. Elbeuf, Bul. soc. étud. sci. nat., 21, 1902, (43-45). [4031 4027 df]. 138

**Lidgett, James.** *Aspidiotus hederæ* in Australia. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (43-45). [4027 *if* 4031]. 130

**Ludwig, Friedrich.** Ueber den angeblichen Schaden von *Nysius* in Australien. Centralbl. Bakt., Jena, Abt. 2, **10**, 1903, (184). [4031]. 140

**Marlatt, Charles I.** [ester]. Notes on the periodical *Cicada* in the District of Columbia in 1902. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (124-126). [4027 *gh* 4031]. 141

— An early record of the periodical *Cicada* [by E. A. Andrews, 1666]. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (126-129). [4031]. 142

— A preliminary report on the San Jose scale [*Aspidiotus perniciosus*] in Japan [with discussion]. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **31**, 1902, (41-47). [4027 *ec* 4031]. 143

**Marriner, G. R.** On a new species of *Psyllidae*. Wellington, Trans. N. Zeal. Inst., **35**, 1903, (305-309). [4031]. 144

**Mason, J. E.** Some Hemiptera from Kenmare. Irish Nat., Dublin, **12**, 1903, (101). [4027 *de*]. 145

**Matsumura, S.** [hōnen]. Monographie der Cercopiden Japans. Sapporo, the Journal of the Sapporo Agricultural College, **2**, 1903, (15-52). [4027 *ec* 4031]. 146

**Melichar, L.** Homopteren-Fauna von Ceylon. Berlin (F. L. Dames), 1903, (IV + 248, mit 6 Taf.). 24 cm. 15 M. [4027 *ef* 4031]. 147

— Monographie der Acanioniiden und Flatiden (Homoptera). Wien, Ann. Nat. Hist. Hofmus., **16**, 1901, (178-258); **17**, 1902, (1-253, 9 Taf.). [4007 4031]. 148

**Montandon, A. L.** Deux nouvelles espèces du genre *Belostoma* Latr. (= *Zaitha* Arn. et Serv. et auct.), des collections du Muséum de Paris. Bul. Muséum, Paris, **1903**, (21-23). [4031]. 149

— Espèces nouvelles ou peu connues du genre *Belostoma* appartenant aux collections du Musée National Hongrois. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., **1**, 1903, (358-363). [4027 *hd hh* 4031]. 150

**Montgomery, Thomas H.** [arrison]. jun. A list of the Hemiptera Heteroptera of the vicinity of Wood's Holl, Massachusetts. [nn. spp. ? in *Macropsylus* and *Tuponia*]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (12-13). [4027 *gy* 4031]. 151

— Further studies on the chromosomes of the Hemiptera Heteroptera. Philadelphia, Pa. Proc. Acad. Nat. Sci., 1901, (261-271, with pl.): [reprint], Philadelphia, Cont. Zool. Lab. Univ. Pa., **1901**, 1902, (261-271, with pl.). [0215 4015 4031]. 152

**Müller-Thurgau, Hermann.** Zum Kampf gegen die Reblaus. Frauenfeld (Huber & Co.), 1901, (II + 15). 8vo. [4019 4031]. 153

**Neumann, L. G.** Note sur une collection d'ectoparasites recueillis en Abyssinie par M. le baron C. von Erlanger. Arch. parasit., Paris, **6**, 1902, (293-294). [3019 4019 4219]. 154

**Newstead, R.** *Kermes quercus* Linn. A Coccid new to Britain. Ent. Mag., London, **39**, 1903, (57-58). [4027 *de* 4031]. 156

— Monograph of the *Coccidae* of the British Isles. Vol. ii. London (Ray Society), 1903, (viii + 16, pls. v and xxxv-lxxv). 8vo. [4027 *de* 4031]. 155

**Nicéville, Lionel de (the late).** Insect pests of forest trees. Calcutta, Ind. Mus. Notes, **5**, 1903, (103-117, with pls.). [4019 4419 4819]. 157

— Insect pests of fruit trees. Calcutta, Ind. Mus. Notes, **5**, 1903, (117-127, with pls.). [4019 4419 4619 4819]. 158

— Insect pests of plants. Calcutta, Ind. Mus. Notes, **5**, 1903, (127-130, with pls.). [4019 4419 4819]. 159

— Insect pests of cereals and crops. Calcutta, Ind. Mus. Notes, **5**, 1903, (134-143, with pls.). [4019 4219 4419 4819]. 160

— Insect pests of indigo. Calcutta, Ind. Mus. Notes, **5**, 1903, (144-164, with pls.). [4019 4419 4819]. 161

— Insect pests of the sugarcane. Calcutta, Ind. Mus. Notes, **5**, 1903, (164-182, with pls.). [4019 4419 4619 4819]. 162

**Nicolle**, Lionel de (*the late*). Insects in Calcutta Municipal water. Calcutta, Ind. Mus. Notes, **5**, 1903, (189-191, with pl.). [4031]. 163

**Osborn**, Herbert. *Aradidae* of Ohio [Contributions from the Department of Zoology and Entomology, No. **14**.] Ohio Nat., Columbus, Ohio, **4**, 1903, (36-42). [4027 *gg* 4031]. 164

— A subterranean root-infesting Fulgorid (*Myndus radiceis* n. sp.). Ohio Nat., Columbus, Ohio, **4**, 1903, (42-44). [4031]. 165

— New species of Ohio Fulgoridae. Ohio Nat., Columbus, Ohio, **4**, 1903, (44-46). [4027 *gg* 4031]. 166

— A method for mounting dry Coccidae for permanent preservation. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., No. **40**, 1903, (35-36). [0060 4031]. 167

**Peal**, H[enry] W[oolner]. The function of the nasiform orifice of the *Aleurodidae*. Calcutta, J. As. Soc. Beng., **72**, Pt. ii, 1903, (6-7). [4011 4031]. 168

— The "Green Bug" and other Jassids as food for birds. Calcutta, J. As. Soc. Beng., **72**, Pt. ii, 1903, (7-9). [4019]. 169

— Contributions towards a Monograph of the Oriental *Aleurodidae*. Part I. Calcutta, J. As. Soc. Beng., **72**, Pt. II, 1903, (61-95, with 5 pls.). [4031]. 170

**Pergande**, Theo. The Southern grain louse (*Toxoptera graminum* Rondani). Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **38**, 1902, (7-19, with pl.). [4019 4031]. 171

**Pomerancev**, D. V. Beitrag zur Kenntnis der auf der Fichte (*Picea excelsa*) lebenden schädlichen und nützlichen Insecten. (Russ.) St. Petersburg, Izv. Lén. Inst., **8**, 1902, (3-25, mit 1 Taf.). [4015 4019 4415 4419 4615 4619 4815 4819]. 172

**Reh**, L[udwig]. Zur Naturgeschichte mittel- und nordeuropäischer Schildläuse. Allg. Zs. Ent., Neudamm, **8**, 1903, (301-308, 351-356, 407-419, 457-469); **9**, 1904, (12-36). [4031 4019]. 173

**Remisch**, Franz. *Ryparochromus* (*Aphanus*, *Pachymerus*) *vulgaris* Schell, ein neuer Hopfenschädling. Soc. Entomol., Zürich, **16**, 1903, (153-155). [4019 4031]. 174

**Reuter**, O[do] M[orannal]. *Capsidae* novae mediterraneae. IV. Helsingfors, Öfvers. F. Vet. Soc., **44**, 1900-1902, (51-70). [4027 *dm* 4031]. 175

— Miscellanea Hemipterologica. Helsingfors, Öfvers. F. Vet. Soc., **44**, 1901-1902, (140-188). [4031]. 176

— *Capsidae* ex Abessinia et regionibus confinibus enumeratae novaeque species descriptae. Helsingfors, Öfvers. F. Vet. Soc., **45**, [No. 67], 1903, (1-18, cum tab.). [4027 *fb* 4031]. 177

— *Capsidae* Chinesenses et Thibetanae hactenus cognitae enumeratae novaeque species descriptae. Helsingfors, Öfvers. F. Vet. Soc., **45**, [No. 16], 1902-1903, (1-23). [4027 *eb* 4031]. 178

— New species, etc., of *Capsidae* captured by Mr. G. C. Champion in Spain in 1901 and 1902. Ent. Mag., London, **39**, 1903, (119-121). [4027 *dg* 4031]. 179

— The food of Capsids. Ent. Mag., London, **39**, 1903, (121-123). [4019]. 180

**Rusiecka**, Marie de. Monographie du genre *Phantia*, Fieb. Schaffhausen, Mitt. Schweiz. Entomol. Ges., **10**, 1902, (420-427). [4027 *d* 4031]. 181

**Saakov**. Ueber die künstliche Vermehrung der Parasiten der Eier der Getreidewanze (*Eurygaster integriceps* Orch.) (Russ.) Trd. B. entom. Učen. Kom. M. Zeml., St. Petersburg, **IV**, No. 2, 1903, (12). [4019 4615 4619]. 182

**Sabrasès** et **Coulongesat**. Cochenille du figuier. Bordeaux, Actes soc. linn., **57**, 1902, (Proc.-verb., CLXVII-CLXVIII). [4031]. 183

**Sajó**, Karl. Die Nährpflanzen der San José-Schildlaus. Prometheus, Berlin, **14**, 1903, (716-718). [4019 4031]. 184

**Sanderson**, E[zra] D[wight]. Three orchard pests [*Steganoptycha pyricolana*, *Euzophera semifuneralis*, and *Cicada septendecim*]. Agric. Exp. Sta., Delaware, Newark, Bull. No. **53**, 1901, (19 with 11 figs.). 23 cm. [Review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., **13**, 1902, (872-873). [4031 4431 2403]. 185

— Report of the entomologist. [Including notes on *Aphis* and *Euzophera semifuneralis*.] Agric. Exp. Sta.,



Delaware, Newark, Rep., **1901**, (127-199, with 6 pls., 16 figs.); review, Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., **14**, 1902, (268-269). [2403 2427 gh 4031 4431]. 186

**Saunders**, E. *Myrmecoris gracilis* Sahlb. An addition to the British Hemiptera. Ent. Mag., London, **39**, 1903, (269-271). [4027 de 4031]. 187

——— *Corizus hyalinus* Fab., an addition to the British Hemiptera. Ent. Mag., London, **39**, 1903, (294). [4027 de 4031]. 188

——— Hemiptera in South Kerry. Irish Nat., Dublin, **12**, 1903, (65). [4027 de]. 189

**Schouteden**, H. Aphidologische Notizen. [1. *Myzus rosarum*. ♂. 5. *Pergandeida ononoides* n. g. n. sp. (~ *Cryptosiphum*). 6. *Nectarosiphon rhinanthi* n. sp.] Zool. Anz., Leipzig, **26**, 1903, (685-688). [4031]. 190

——— Eine neue *Agonosoma*-Art, [*A. dohrni* n. sp.] Stettiner ent. Ztg. **64**, 1903, (362-363). [4031]. 191

——— Hemiptera africana. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (118-122). [4031]. 192

——— Hemiptères de Francorchamps. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (265-272). [4027 dd]. 193

——— Les aphides radicales de Belgique et les fourmis. Bruxelles, Ann. Soc. ent. Belgique, **46**, 1902, (136-142). [4019 4031]. 194

——— La sollicitude maternelle chez les hémiptères. Bruxelles, Rev. Univ., **1902-1903**, (771-777). [4019]. 195

**Scott**, W. M. A preliminary note on a new species of *Aphis* injurious to plums and peaches in Georgia. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **31**, 1902, (56-59). [4019 4027 gh 4031]. 196

**Silvestri**, Filippo. Coccidei parassiti della vite. Bollettino di Entomologia agraria, Padova, **9**, 1902, (74-82, 97-104, 121-128, 146-149). [4019 4031]. 197

**Smith**, J. B. Two strawberry pests [*Phloxopterus comptana* and *Aphis forbesi*]. Agric. Exp. Sta., New Jersey, New Brunswick, Bull. No. **149**, 1901, (17, with 2 pls.). 23 cm. [Review],

Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., **13**, 1901, (161). [4019 4031 4419 4431]. 198

**Smith**, J. B. The rose scale (*Diaspis rosae*). Agric. Exp. Sta., New Jersey, New Brunswick, Bull. No. **159**, 1902, (14, with 6 figs.). 23 cm. [Review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., **14**, 1902, (372). [4019 4031]. 199

——— Treatment for San José scale in orchard and nursery. Pennsylvania, Dept. Agric., Bull., Harrisburg, No. **90**, 1902, (33, with pl.). 23.5 cm. [4003 4031]. 200

——— Treatment for San José scale in orchard and nursery. Pennsylvania, Rep. Dept. Agric., Harrisburg, **8**, pt. 1, **1902**, 1903, (233-261, with pl.). [4003 4031]. 201

**Stauffer**, H[einrich]. Ueber ein neues Organ bei *Phylloxera vastatrix* Pl. Allg. Zs. Ent., Neudamm, **8**, 1903, (30-35, 57-60, mit 1 Taf.). [4031 4007]. 202

**Stebbing**, E. P. On the acquisition of alar appendages by the spruce form of *Chermes abietis-piceae* Steb. M. S. in the N.-W. Himalayas. Calcutta, J. As. Soc. Beng., **72**, pt. ii, 1903, (57-60). [4015]. 203

——— Departmental notes on insects that affect forestry, No. 2. Calcutta, 1903, (V-VII + 151-334, with 13 pls.). 25 cm. [2419 4031 4231 4431 4631 4831]. 204

——— Insect pests of the sugar cane in India. Calcutta, Ind. Mus. Notes, **5**, 1903, (64-91). [2419 3819 4019 4419 4619 4819]. 205

**Stedman**, J. M. The chinch bug [*Blissus leucopterus*]. Agric. Exp. Sta., Missouri, Missouri Station, Bull. No. **51**, 1902, (115-142, with fig.); [review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., **14**, 1902, (270). [4031]. 206

**Swezey**, Otto H. Observations on Hymenopterous parasites of certain *Fulgoridae*. Columbus, Ohio, Univ. Bull., (Ser. 7), No. **23**, 1903, (Cont. Dept. Zool. Ent.). [Reprint from Ohio Nat. Columbus Ohio, **3**, 1903, (444-451, with pl.).] Separate, 23 cm. [4019 4031 4631]. 207

**Then**, Franz. Zwei species der Cicadinen-Gattung *Deltocephalus*. Graz, Mitt. Natw. Ver. Steierm., **1901**, 1902, (186-192). [4031]. 208

**Uhler**, P[hilip] R[heesel]. Enumeration of the *Cicadidae* of Brazil in the collection of Mr. Herbert H. Smith. Baltimore, Trans. Md. Acad. Sci., **2**, 1903, (1-17). [4027 *hh* 4031]. 209

——— A new *Cicada* from Hayti. [*Psallodia espinii* n. gen. et. sp.]. Baltimore, Trans. Md. Acad. Sci., **2**, 1903, (18). [4027 *hc* 4031]. 210

**Van Duzee**, Edward P. Hemiptera of Beulah, New Mexico. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (107-112). [4027 *gi* 4031]. 211

——— Note on *Aradus niger* Stål [near Buffalo, N. Y.]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (23). [4027 *gg* 4031]. 212

**Visart**, Oscar. Sugli afidi delle piante e sui modi di combatterli con particolare riguardo alla *Schizoneura lanigera* Hausm. (Piddocchio sanguigno). Agricolt. Ticinese, Lugano, **35**, 1903, (103-108). [4019 4031]. 213

**Voronkov**, N. V. Die Art der Nahrungsaufnahme bei der Bettwanze, *Acanthia lectularia*. (Russ.). Moskva, Trd. kruž. izsl. russ. priro., **1**, 1903, (87-100, mit 4 Fig.). [4011 4031]. 214

**Warloe**, H. New Scandinavian Hemiptera Heteroptera. (Norw.). Entomol. Tidskr., Stockholm, **22**, 1901, (144). [4027 *da* 4031]. 215

**Washburn**, F. L. Distribution of the chinch bug [*Blissus*] in Minnesota. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., No. **40**, 1903, (32-34). [4027 *gi* 4031]. 216

**Watkins**, C. J. *Coccidae* in Gloucestershire. Ent. Mag., London, **39**, 1903, (294-296). [4007 *de* 4031]. 217

**Webster**, F. M. The *Coccidae* of Ohio. Philadelphia, Pa., Ent. News Acad. Nat. Sci., Amer. Ent. Soc., **14**, 1903, (288-290). [4027 *gg* 4031]. 218

**Weed**, C[larence] M[oores] and **Conradi**, A. F. The squash bug [*Anasa tristis*]. Agric. Exp. Sta., New Hampshire, Durham, Bull. No. **89**, 1902, (13-28, with 2 figs.); [review], Washington,

D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., **14**, 1902, (270). [4019 4031]. 219

**Zehntner**, L[eo]. Die Helopeltisplage der Cacaocultur . . . (Holländisch) Salatiga, Bull. Cacao, **7**, 1903, (1-22). [4019 4031]. 220

## 4003 COMPREHENSIVE AND GENERAL WORKS.

### ECONOMICS.

**Buffa**, P. Coccidei parassiti della vite. Bollettino di Entomologia agraria, Padova, **9**, 1902, (3-11).

**Gossard**, H. A. Review of the white fly [*Aleurodes citri*] investigation [in Florida] with incidental problems. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **31**, 1902, (68-74).

——— The cottony cushion scale (*Icerya purchasi*). Agric. Exp. Sta., Florida, Lake City, Bull., No. **56**, 1901, (309-356, with 1 pl., 6 figs.); [review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta., Rec., **13**, 1902, (472).

——— Two peach scales [*Aspidiotus perniciosus*, and *Diaspis pentagona*]. Agric. Exp. Sta., Florida, Lake City, Bull. No. **69**, 1902, (469-498, with 4 pls.); [review], *l.c.* **14**, 1903, (469-470).

**Smith**, J. B. Treatment for San José scale in orchard and nursery. Pennsylvania, Rep. Dept. Agric., Harrisburg, **8**, pt. 1, **1902**, 1903, (233-261, with pl.); Pennsylvania, Dept. Agric., Bull., Harrisburg, No. **90**, 1902, (33, with pl.).

## 4007 STRUCTURE.

### GENERAL.

**Hansen**, H. J. The morphology and classification of the auchenorrhynchos Homoptera. Entomologist, London, **36**, 1903, (42-44, 64-67, 93-94).

**Mellichar**, L[eonold]. Monographie der Acanaloniiden und Flatiden. Wien, Ann. NatHist. Hofmus., **16**, 1901, (178-258); **17**, 1902, (1-253, mit 9 Taf.).

## SENSE ORGANS.

**Stauffer**, H[enrich]. Ueber ein neues Organ bei *Phylloxera vastatrix* Pl. Allg. Zs. Ent., Neudamm, **8**, 1903, (30-35, 57-60, mit 1 Taf.).

## 4011 PHYSIOLOGY.

## FUNCTION OF SPECIAL STRUCTURES.

**Peal**, H[enry] W[oolner]. The function of the nasiform orifice of the *Aleurodidae*. Calcutta, J. As. Soc. Beng., **72**, Pt. ii, 1903, (6-7).

## ASSIMILATION.

**Voronkov**, N. V. Die Art der Nahrungsaufnahme bei der Bettwanze, *Acanthia lectularia*. (Russ.) Moskva, Trd. kruž. izsl. russ. prir., **1**, 1903, (87-100, mit 4 Fig.).

## 4015 DEVELOPMENT.

## GENERAL.

**Clément**, A. L. Un parasite des mandarines. Nature, Paris, (1<sup>er</sup> sem.), **31**, 1903, (243-245, av. fig.).

## SPERMATOGENESIS.

**Montgomery**, Thomas H[arrison], jun. Further studies on the chromosomes of the Hemiptera Heteroptera. Philadelphia, Pa., Proc. Acad. Nat. Sci., 1901, (261-271, with pl.); [reprint], Philadelphia, Cont. Zool. Lab. Univ. Pa., 1901, 1902, (261-271, with pl.).

## EMBRYOLOGY.

**Köhler**, A. Ueber die Bildung des Chorions bei *Pyrrhocoris apterus*. (Vorläuf. Mitt.) Zool. Anz., Leipzig, **26**, 1903, (633-636).

## POSTEMBRYONIC ONTOGENY.

**Pomerancev**, D[mitrij Vladimirovič]. Beitrag zur Kenntnis der auf der Fichte

(*Picea excelsa*) lebenden schädlichen und nützlichen Insecten. (Russ.) St. Petersburg, Izv. Lén. Inst., **8**, 1902, (3-25, mit 1 Taf.).

## CHANGES DURING LIFE.

**Stebbing**, E. P. On the acquisition of alar appendages by the spruce form of *Chermes abietis-piceae* Steb. MS. in the N.-W. Himalayas. Calcutta, J. As. Soc. Beng., **72**, Pt. ii, 1903, (57-60).

## 4019 ETHOLOGY.

## GENERAL.

**Brandicourt**, Virgile. Pucerons et fourmis. Nature, Paris, **30**, (2<sup>e</sup> semest.), 1902, (202).

**Bredin**, G. Neue Rhynchotenausbeute aus Südamerika. Soc. Entomol., Zürich, **13**, 1903, (147-149).

**Buckton**, G. B. A monograph of the *Membracidae*. To which is added a paper entitled: Suggestions as to the meaning of the shapes and colours of the *Membracidae* in the struggle for existence, by E. B. Poulton. London, (XII + 296, 60 pls.). [Pp. 181 to 296 were published in 1902. Poulton's contribution is on pp. 273-285.]

**Embleton**, Alice L. *Cerataphis lataniae*, a peculiar Aphid. London, J. Linn. Soc. Zool., **29**, 1903, (90-107, pl. XII).

**Kirkaldy**, G. W. Miscellanea Rhynchotalia. No. 6. Entomologist, London, **36**, 1903, (44); No. 7, ib., (179-181).

## HABITS.

**Bueno**, J. R. de la Torre. Brief notes toward the life history of *Pelocoris femorata* Pal. B., with a few remarks on habits. New York, N.Y., J. Ent. Soc., **11**, 1903, (166-173).

**Oholodkovskij**, Nikolaj Aleksandrovič. Zweites Verzeichnis der Aphidensammlung des zoologischen Kabinetts des St. Petersburger Forst-Instituts. (Russ.) St. Petersburg, Izv. Lén. Inst., **8**, 1902, (49-59, mit 1 Taf.).

**Froggatt, Walter W.** Cicadas ("Locusts") and their habits. Agric. Gaz., Sydney, N.S.W., **14**, 1903, (334-341, 418-425, with 2 pls.).

**Pergande, Theo.** The southern grain louse (*Toxoptera graminum* Rondani). Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **38**, 1902, (7-19, with pl.).

**Reuter, O. M.** The food of capsids. Ent. Mag., London, **39**, 1903, (121-123).

**Sajo, Karl.** Die Nährpflanzen der San Jose-Schildlaus. Prometheus, Berlin, **14**, 1903, (716-718).

#### PARENTAL RELATIONS.

**Kirkaldy, G. W.** Upon maternal solicitude in Rhynchota and other non-social insects. Entomologist, London, **36**, 1903, (113-120).

**Schouteden, H.** La sollicitude maternelle chez les hémiptères. Bruxelles, Rev. Univ., **1902-1903**, (771-777).

#### OVIPOSITION.

**Alwood, William B.** A note on the oviposition of the seventeen-year locust (*Cicada septendecim*). Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., No. **40**, 1903, (75-77).

#### INSTINCT AND PSYCHOLOGY.

**Fry, H.** Animal sense perceptions. Zoologist, London, (Ser. 4), **6**, 1902, (392-393).

#### SYMBIOSIS.

**Breddin, G.** Eine termitophile Lygäide. Soc. Entomol., Zurich, **18**, 1903, (75).

**Howard, I[reland] O[ssian].** On the habits of *Entilia sinuata* [in relation to ants]. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **30**, 1901, (75-78).

**Schouteden, H.** Les aphides radicales de Belgique et les fourmis. Bruxelles, Ann. Soc. Ent. Belgique, **46**, 1902, (136-142).

#### PARASITISM.

**Clément, A. L.** Un parasite des mandarines. Nature, Paris, (1<sup>er</sup> sem.), **31**, 1903, (243-245, av. fig.).

**Neumann, L. G.** Note sur une collection d'ectoparasites recueillis en Abyssinie par M. le baron C. von Erlanger. Arch. parasit., Paris, **6**, 1902, (293-294).

**Reh, I[udwig].** Zur Naturgeschichte mittel- und nordeuropäischer Schildläuse. Allg. Zs. Ent., Neudamm, **8**, 1903, (301-308, 351-356, 407-419, 457-460); **9**, 1904, (12-36).

**Saakov, Ueber die künstliche Vermehrung des Parasiten der Eier der Getreidewanze (*Eurygaster integriceps* Orch.) (Russ.) Trd. B. entom. Učen. Kom. M. Zeml., St. Peterburg, IV, No. 2, 1903, (12).**

**Swezey, Otto H.** Observations on Hymenopterous parasites of certain Fulgoridae. Columbus, Ohio, Univ. Bull., (ser. 7), No. **23**, 1903, (Cont. Dept. Zool. Ent.). [Reprint from Ohio Nat., Columbus, Ohio, **3**, 1903, (444-451, with pl.).] Separate. 23 cm.

**Zehntner, I[eo].** Die Helopeltisplage der Cacaocultur. (Holländisch) Salattiga, Bull. Cacao, **7**, 1903, (1-22).

#### ENEMIES.

**Peal, H[enry] W[oolmer].** The "Green Bug" and other Jasside as food for birds. Calcutta, J. As. Soc. Beng., **72**, Pt. ii, 1903, (7-9).

#### UTILITY AND HARMFULNESS.

Die wichtigsten Blattläuse der Obstbäume. Schweiz. Landw. Zeitschr., Aarau, **30**, 1902, (1141-1143, mit 9 Fig.).

Ist die Bekämpfung der Reblaus ein Irrtum? Schweiz.-Bauer, Bern, **57**, 1903, No. 65, (2).

Die Blutlaus und ihre Vertilgung (*Schizoneura lanigera* Hausm.) von E. N. Schweiz. Landw. Zeitschr., Aarau, **30**, 1902, (914-916). [4031].

Le *Phylloxera* en 1901. Journ. Agricult. Suisse, Genève, **35**, 1903, (121-122). [4031].

Le *Phylloxera* en 1902. l.c. (276-280). [4031].

**Le Phylloxera en Californie.** Naturaliste, Paris, (sér. 2), **25**, 1903, (152).

**Breddin, G.** Ueber die Hopfenwanze und andere Hopfenschädlinge aus der Ordnung der Wanzen. Soc. Entomol., Zurich, **18**, 1903, (81-82).

**Proggatt, W. W.** Woolly Aphis or American blight. Agric. Gaz., Sydney, N.S.W., **14**, 1903, (18-25, with 1 pl.).

**Gulland, E.** La cochenille du Fusain. Toulon, Bul. soc. agricult., **1902**, (111-113). [Reproduit par le Réveil agricole].

**Hertsog, August.** Die Schildläuse, ihr Schaden und deren Bekämpfung. Landw. Ztg., Halberstadt, **13**, 1901, (155-156).

**Müller-Thurgau, Hermann.** Zum Kampf gegen die Reblaus. Frauenfeld (Huber & Cie), 1901, (II + 15). 8vo.

**Nico'sville, Lionel de (the late).** Insect pests of forest trees. [*Monophlebus*, *Ochrophara montana* Dist., *Psylla obsoleta*, Buckt.] Calcutta, Ind. Mus. Notes, **5**, 1903, (103-181, with pls.).

**Pomerancev, Dmitrij Vladimirovič.** Beitrag zur Kenntnis der auf der Fichte (*Picea excelsa*) lebenden schädlichen und nützlichen Insecten. (Russ.) St. Petersburg, Izv. Lén. Inst., **8**, 1902, (3-25, mit 1 Taf.).

**Remisch, Franz.** *Rhyparochromus* (*Aphanus*, *Pachymerus*) *rufus* Schell, ein neuer Hopfenschädling. Soc. Entomol., Zürich, **16**, 1903, (153-155).

**Scott, W. M.** A preliminary note on a new species of *Aphis* injurious to plums and peaches in Georgia. Washington, D.C., U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **31**, 1902, (56-59).

**Silvestri, Filippo.** Coccidei parassiti della vite. Bollettino di Entomologia agraria, Padova, **9**, 1902, (74-82, 97-104, 121-128, 146-149).

**Smith, J. B.** Two strawberry pests [*Phloxopteris comptana* and *Aphis forbesi*]. Agric. Exp. Sta., New Jersey, New Brunswick, Bull., No. **149**, 1901, (17, with 2 pls.). 23 cm.; [review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., **13**, 1901, (161).

— The rose scale (*Diaspis rosae*). Agric. Exp. Sta., New Jersey, New Brunswick, Bull. No. **159**, 1902, (14, with 6 figs.). 23 cm.; [review], l.c. **14**, 1902, (372).

**Stebbing, E. P.** Insect pests of the sugar-cane in India [*Alcurodes barodensis*, Mask.; *Blissus gibbus*, Fabr.; *Dietyophara pallida*, Donovan; *Ripersia sacchari*, Gie.]. Calcutta, Ind. Mus. Notes, **5**, 1903, (87-88).

**Visart, Oscar.** Sugli afidi delle piante e sui modi di combatterli con particolare riguardo allo *Schizoneura lanigera* Hausm. (Pidocchio sanguigno). Agricolt. Ticinese, Lugano, **35**, 1903, (103-108).

**Wood, C[laurence] M[oores] and Conradi, A. F.** The squash bug [*Anasias tristis*]. Agric. Exp. Sta., New Hampshire, Durham, Bull. No. **89**, 1902, (13-28, with 2 figs.); [review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., **14**, 1902, (270).

## 4023 VARIATION AND ETIOLOGY.

**Garber, J. F.** Dimorphism in *Blissus leucopterus*. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **5**, 1903, (330-335, with text fig.).

## 4027 GEOGRAPHICAL DISTRIBUTION.

**Oholodkovskij, Nikolaj Aleksandrovič.** Zweites Verzeichnis der Aphidensammlung des zoologischen Kabinetts des St. Petersburger Forst-Instituts. (Russ.) St. Petersburg, Izv. Lén. Inst., **8**, 1902, (49-59, mit 1 Taf.).

## d EUROPE.

**Horváth, Géza.** Conspectus specierum generis *Graphosoma*. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., **1**, 1903, (345-354).

**Rusiecka, Marie de.** Monographie du Genre *Phantia*, Fieb. Schaffhausen, Mitt. Schweiz. Entomol. Ges., **10**, 1902, (420-424).

## da SCANDINAVIA.

**Warloe, H.** New Scandinavian Hemiptera Heteroptera. (Norw.) Entomol. Tidskr., Stockholm, **23**, 1901, (144).

## db RUSSIA IN EUROPE.

**Jachontov, A. A.** Notice sur l'extension, dans la Russie centrale, de *Cicadetta montana*. (Russ.) Rev. Russ. Ent., Jaroslavl, **3**, 1903, (313).

**Jakovlev, V. E.** Hémiptères-hétéroptères nouveaux de la faune paléarctique. IV. Lc. (1-4).

— Hémiptères - hétéroptères nouveaux de la faune paléarctique. V. Lc. (81-84).

— Hémiptères - hétéroptères nouveaux de la faune paléarctique. VI. Rev. Russ. Ent., Jaroslavl, **3**, 1903, (191-195).

— Hémiptères - hétéroptères nouveaux de la faune paléarctique. VII. Lc. (289-293).

— Hémiptères - hétéroptères nouveaux de la faune paléarctique. VIII. Lc. (377-380).

— Les *Nentiglossa* Curt. de la faune paléarctique. (Russ.) St. Petersburg, Hor. Soc. Ent. Ross., **36**, 1903, (325-331).

— Nouvelles espèces du genre *Phimodera* Germ. de la faune de la Russie. (Russ.) Lc. (183-191).

**Kruikovskij, L.** Nouveaux renseignements sur l'extension, dans la Russie d'Europe, de *Cicadetta montana* Scop (Russ.) Lc. (404).

## de GERMAN EMPIRE.

**Kieber, Th.** Deutsche Sing-Cicaden. Stuttgart, Jahreshfte Ver. Natk., **59**, 1903, (LII-LIV).

## dd BELGIUM.

**Schouteden, H.** Hémiptères de Francorchamps. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901 (265-272).

## de BRITISH ISLANDS.

**Mason, J. E.** Some Hemiptera from Kenmare. Irish Nat., Dublin, **12**, 1903, (101).

**Newstead, R.** *Kermes quercus* Linn. A Coccid new to Britain. Ent. Mag., London, **39**, 1903, (57-58).

— Monograph of the *Coccidae* of the British Isles. Vol. ii. London,

(Ray Society), 1903, (viii + 16, pls. F and xxxv-lxxv). 8vo.

**Saunders, E.** Hemiptera in South Kerry. Irish Nat., Dublin, **12**, 1903, (65).

— *Myrmecoris gracilis* Sahlb. An addition to the British Hemiptera. Ent. Mag., London, **39**, 1903, (269-271).

— *Corizus hyalinus* Fab., an addition to the British Hemiptera. Lc. (294).

**Watkins, C. J.** *Coccidae* in Gloucestershire. Ent. Mag., London, **39**, 1903, (294-296).

## df FRANCE.

**Dominique, J.** Catalogue des Hémiptères (Hétéroptères, Homoptères, Psyllides) de la Loire-Inférieure. Nantes, Bul. soc. sci. nat., (sér. 2), **12**, 1902, (230).

**Lambertie.** Note sur les Hémiptères homoptères nouveaux et peu connus de la Gironde. Bordeaux, Actes soc. linn., (sér. 6), **57**, 1902, (Procès-verb., LXXXVIII-LXXXII, LXXXIV, LXXXV, CLXXI-CLXXIV).

— Notes sur quelques hémiptères-homoptères nouveaux ou rares de la Gironde. Lc. **57**, 1902, (Procès-verb., CLXXII-CLXXIV).

— Note sur quelques Hémiptères-homoptères nouveaux ou peu connus de la Gironde. Lc. **53**, 1903, (Procès-verb., XXI-XXIV).

— Note sur quelques Hémiptères nouveaux ou rares pour la Gironde. Lc. (Procès-verb., XCVI-XCVIII).

**Lancelevée, Th.** Note sur la capture en Normandie d'une espèce rare d'Hémiptère-homoptère, la *Cicadetta montana* Scop. Elbeuf, Bul. soc. étud. sci. nat., **21**, 1902, (43-45).

## dg SPAIN.

**Champion, G. C.** An entomological excursion to Bejar, Central Spain. London, Trans. Ent. Soc., **1903**, (165-182).

**Renter, O. M.** New species, etc., of *Capsidae* captured by Mr. G. C. Champion in Spain in 1901 and 1902. Ent. Mag., London, **39**, 1903, (119-121).

## di SWITZERLAND.

**Hofer, J.** Beitrag zur Cocciden-Fauna der Schweiz. Schaffhausen, Mitt. Schweiz. Entomol. Ges., **10**, 1903, (474-483).

## dk AUSTRIA-HUNGARY.

**Horváth, Géza.** Homoptera quinque nova ex Hungaria. Budapest. Ann. Hist.-Nat. Mus. Nat. Hung., **1**, 1903, (472-476).

## dl BALKAN PENINSULA.

**Horváth, Géza.** Fauna Hemipterorum Serbiae. (Ungarisch, lateinisch) Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., **1**, 1903, (1-28).

## dm MEDITERRANEAN.

**Reuter, O[do] M[orannal].** *Capsidae* novae mediterraneae. IV. Helsingfors Öfvers. F. Vet. Soc., **44**, 1901-1902, (51-70). [4031].

## e ASIA.

**Breddin, G.** Neue malayische Homopteren aus der Familie *Cercopidae*. Soc. Entomol., Zürich, **17**, 1902, (51-52, 58-59).

——— Neue tropische Wasserläufer der Gattung *Ptilomera*. l.c. (147-148).

——— Neue Raubwanzen. l.c. (169-171).

——— Neue Raubwanzen. l.c. (177-178).

——— Zwei neue *Chrysocoria*-Formen. (*Ch. viridiventris* n. sp.). l.c. **18**, 1903, (74-75).

——— Neue Hemipterenarten aus Südost-Asien. l.c. (33-35).

**Distant, W. L.** Undescribed oriental Rhynchota. Entomologist, London, **36**, 1903, (1-2).

## ea ASIATIC RUSSIA.

**Jakovlev, V. E.** Hémiptères-Hétéroptères nouveaux de la faune paléarctique. IV. Rev. Russ. Ent., Jaroslavl, **3**, 1903, (1-4).

——— Hémiptères-Hétéroptères nouveaux de la faune paléarctique. V. l.c. (81-84).

——— Hémiptères-Hétéroptères nouveaux de la faune paléarctique. VI. l.c. (191-195).

——— Hémiptères-Hétéroptères nouveaux de la faune paléarctique. VII. l.c. (289-293).

——— Hémiptères-Hétéroptères nouveaux de la faune paléarctique. VIII. l.c. (377-380).

——— Nouvelles espèces du genre *Phimodera* Germ. de la faune de la Russie. (Russ.) St. Peterburg, Hér. Soc. Ent. Ross., **36**, 1903, (183-191).

——— Les *Vachiria* Stål (Hem.-Het.) de la faune de l'Asie centrale. (Russ.) l.c. (199-203).

——— Les Hémiptères-Hétéroptères du gouvernement d'Irkutsk. (Russ.) l.c. (317-324).

——— Les *Neottiglossa* Curt de la faune paléarctique. (Russ.) l.c. (325-331).

## eb CHINA.

**Distant, W. L.** Rhynchotal notes. XVI. Heteroptera: Family *Reduviidae* (continued), *Apiomerinae*, *Harpactorinae*, and *Nabinae*. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (203-213, 245-258); XVII. Heteroptera, Family *Reduviidae*, ib., (352-367); XVIII. Heteroptera, **12**, 1903, (248-253). XIX. Ib., (469-480).

**Reuter, O. M.** *Capsidae* Chinenses et Thibetanae hactenus cognitae enumeratae novaeque species descriptae. Helsingfors, Öfvers. F. Vet. Soc., **45**, [No. 16], 1902-1903, (1-23).

## ec JAPANESE ISLANDS.

**Marlatt, C[harles] L[ester].** A preliminary report on the San José scale [*Aspidiotus perniciosus*] in Japan [with discussion]. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **31**, 1902, (41-47).

**Matsumura**, S[hönen]. Monographie der Cercopiden Japans. Sapporo, Journ. of the Sapporo Agricultural College, **2**, 1903, (5-52).

*e*1 COCHIN CHINA.

**Bredin**, G. Einige neue Homopteren (9 nn. spp. in: *Capnodistes* n.g. 2, *Tetigonia* 3, *Conogonia* n.g. 3, *Haeniatoscarta* n.g.). Soc. Entomol., Zürich, **18**, 1903, (91-92, 98-99).

**Jacobi**, A. Neue Homopteren aus Tonking. Berlin, SitzBer. Ges. Natf. Freunde, **1902**, (20-25).

*e*f BRITISH INDIA: CEYLON.

**Distant**, W. L. The fauna of British India including Ceylon and Burma. Edited by W. T. Blanford. Rhynchota Vol. II (Heteroptera), Pt. I, London, 1903, (X + 242).

**Horváth**, Géza. *Pentatomidae* novae extraeuropaeae. Budapest, Ann Hist-Nat. Mus. Nat. Hung., **1**, 1903, (400-409).

**Melichar**, L. Homopteren-Fauna von Ceylon. Berlin (F. L. Dames), 1903, (IV + 248, mit 6 Taf.). 24 cm. 15 M.

*e*g MALAY PENINSULA.

**Bredin**, G. Neue malayische Homopteren aus der Familie *Cercopidae*. Soc. Entomol., Zürich, **17**, 1902, (51-52, 58-59).

— Einige Homopteren aus der Verwandtschaft von *Hypsauchenia* Germ. l.c. (90-92).

— Einige neue Homopteren (9 nn. spp. in: *Capnodistes* n.g. 2, *Tetigonia* 3, *Conogonia* n.g. 3, *Haeniatoscarta* n.g.) l.c. **18**, 1903, (91-92, 98-99).

— Ueber einige Tetyriden. l.c. (57-59).

— Ein neuer *Hyperoncus* aus Java. (*H. complutus* n. sp.) l.c. (66).

**Cockerell**, T[hodore] D[ru] A[lison]. *Aspidiotus sacchari* in Java. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (24).

**Distant**, W. L. Report on the Rhynchota. Part I. Heteroptera. Fascic. Malay. Zool., **2**, (219-272, pls. XV, XVI).

(N 2-9053)

*f* AFRICA.

*f*b NORTH EAST AFRICA.

**Cockerell**, T. D. A. A new Coccid of the genus *Asterolecanium* from Egypt. Entomologist, London, **36**, 1903, (112).

**Reuter**, O. M. *Copsidae* ex Abessinia et regionibus confinibus enumeratae novaeque species descriptae. Helsingfors, Öfvers. F. Vet. Soc., **45**, [No. 67], 1903, (1-18, cum tab.).

*f*c SAHARA AND THE FRENCH SUDAN.

**Bredin**, G. Eine neue *Tetrozia* aus Afrika (*T. blanda* n. sp.). Soc. Entomol., Zürich, **18**, 1903, (82-83).

*f*e CONGO STATE AND ANGOLA.

**Bredin**, G. Neue Raubwanzen. Soc. Entomol., Zürich, **17**, 1903, (177-178).

— *Catadipsos* n. gen. Acanthosominorum (Hemiptera Heteroptera). l.c. **18**, 1903, (90-91).

— Eine neue Reduviinenart aus Westafrika. (*Platymis elegans*). l.c. (99-100).

— Einige afrikanische Heteropteren. l.c. (107-108).

— Einige afrikanische Rhynchoten. l.c. (115-116).

*f*f EAST AFRICA.

**Distant**, W. L. Rhynchotal Miscellanea. Part I. Rhynchota from the Transvaal, Mashonaland and British Nyassaland. Cape Town, Ann. S. Afric. Mus., **3**, pt II, 1903, (43-62).

— Rhynchotal notes XVI. Heteroptera: Family *Reduviidae* (continued). *Apiomerinae*, *Harpactorinae*, and *Nabinae*. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (203-213, 245-258); XVII Heteroptera, Family *Reduviidae*, *ib.*, (352-367); XVIII Heteroptera, **12**, 1903, (248-253); XIX, *ib.*, (469-480).

**Kirkaldy**, G. W. Hemiptera. Nat. Hist. Sokotra, (381-394, pl. XXIII).

2 K



## g NORTH AMERICA.

**Cockerell, T. D. A.** New and little-known American Coccidae. *Ann. Mag. Nat. Hist.*, London, (Ser. 7), 11, 1903, (155-165).

## gg NORTH EASTERN UNITED STATES.

**Banks, Nathan.** Additions to the list of New York Pentatomidae. *New York, N.Y., J. Ent. Soc.*, 11, 1903, (227).

**Britton, W. E.** San José scale insect: Its appearance and spread in Connecticut. Connecticut, (State station), New Haven, *Bull.*, No. 135, 1901, (14, with 5 pls.). 23 cm. [Review] *Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec.*, 13, 1902, (766-767).

**Bueno, J. R. de la Torre.** A preliminary list of the Pentatomidae within fifty miles of New York. *New York, N.Y., J. Ent. Soc.*, 11, 1903, (128-129).

——— Note on Pentatomidae. [Correction to New Jersey list in author's "The Pentatomidae within fifty miles of New York."]. *l.c.* (228).

**King, George B.** The Coccidae of Ohio [with bibliography]. *Philadelphia, Pa., Ent. News Acad. Nat. Sci.*, 14, 1903, (204-206).

**Montgomery, Tho[mas] H[arrison], jun.** A list of the Hemiptera Heteroptera of the vicinity of Wood's Holl, Massachusetts. [nn. spp.? in *Macrotylus* and *Tuponia*. *l.c.* 13, 1902, (12-13).

**Osborn, Herbert.** *Aradidae* of Ohio [Contributions from the Department of Zoology and Entomology, No. 14]. *Ohio Nat., Columbus, Ohio*, 4, 1903, (36-42).

——— New species of Ohio Fulgoridae. *l.c.* (44-46).

**Van Duzee, E. P.** Note on *Aradus niger* Stal [near Buffalo, N.Y.]. *Philadelphia, Pa., Ent. News Acad. Nat. Sci.*, 13, 1902, (23).

**Webster, F. M.** The Coccidae of Ohio. *l.c.* 14, 1903, (288-290).

## gh SOUTH EASTERN UNITED STATES.

**Ball, Elmer D[arwin].** Descriptions of some new tree hoppers [*Telamona*] from the United States. *Washington, D.C., Proc. Biol. Soc.*, 16, 1903, (177-182, with pl.) Separate. 23.3 cm.

**Kotinsky, Jacob.** The first North American leaf-galliaspine [*Cryptophyllaspis liquidambaris* n. sp.]. *Washington, D.C., Proc. Ent. Soc.*, 5, 1903, (149-150).

**Marlatt, C[harles] L[ester].** Notes on the periodical Cicada in the District of Columbia in 1902. *l.c.* (124-126).

**Scott, W. M.** A preliminary note on a new species of *Aphis* injurious to plums and peaches in Georgia. *Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent.*, (N. Ser.), No. 31, 1902, (56-59).

## gi WESTERN UNITED STATES.

*Le Phylloxéra en Californie.* *Naturaliste, Paris*, (sér. 2), 25, 1903, (152). [4019 4031].

**Cockerell, T[heodore] D[ru] A[lison].** *Mytilaspis beckii* in California. *Philadelphia, Pa., Ent. News Acad. Nat. Sci.*, 13, 1902, (17).

——— [Additional records of Hemiptera from Beulah, New Mexico]. *Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc.*, 29, 1903, (113).

——— *Aphididae*. [from Beulah, New Mexico.] *l.c.* (114-116).

[**Cockerell, Wilmatte Porter and Cockerell, Theodore Dru Alison.** [A new Coccid from Beulah]. [*Phenacoccus vipersioides* n. sp.]. *l.c.* (112-113).

**Coleman, George A.** Coccidae of the Coniferae, with the descriptions of ten new species from California. *New York, N.Y., J. Ent. Soc.*, 11, 1903, (61-85, with pl.).

**Kellogg, V[ernon] L[yman].** Notes on California Coccidae, Aleurodidae, and Scolytidae. *Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent.*, No. 40, 1903, (83-84).

**King, George B.** The seventeenth American *Kermes* (Coccidae). [*K. arizonensis* n. sp.]. *Philadelphia, Pa., Ent. News Acad. Nat. Sci.*, 14, 1903, (21-22).

**Kuwana, S. J.** A new Coccid from California [*Pseudolecanium distichum* n. sp. with list of species and bibliography of *Pseudolecanium*]. *l.c.* 13, 1902, (134-136, with text-fig.).

**Van Duzee, Edward P.** Hemiptera of Beulah, New Mexico. *Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc.*, 29, 1903, (107-112).

**Washburn, F. L.** Distribution of the chinch bug in Minnesota. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., No. 40, 1903, (32-34).

#### h CENTRAL AND SOUTH AMERICA.

**Breddin, G.** Eigine neue südamerikanische Ectrichodinen. Soc. Entomol., Zürich, 18, 1903, (65).

——— Südamerikanische Raubwanzen. l.c. (108, 113-115).

——— Neue Arten der Gattung *Edessa*. l.c. (131-132).

#### ha MEXICO.

**Cockerell, T. D. A.** Five new *Coccidae* from Mexico. Entomologist, London, 36, 1903, (45-48).

——— *Chrysomphalus agaris* as a pest [in Mexico]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (15).

#### hb CENTRAL AMERICA.

**Distant, W. L.** Additions to the Rhynchotal fauna of Central America. London, Trans. Ent. Soc., 1903, (525-527).

#### hc WEST INDIES.

**Uhler, P. R.** A new *Cicada* from Hayti. [*Psallodia* n. gen.] Baltimore, Trans. Md. Acad. Sci., 2, 1903, (18).

#### hd TRINIDAD.

**Montandon, A. L.** Espèces nouvelles ou peu connues du genre *Belostoma* appartenant aux collections du Musée National Hongrois. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (358-363).

#### he COLUMBIA: ECUADOR.

**Breddin, G.** Ueber einige Tetyriden. Soc. Entomol., Zürich, 18, 1903, (57-59).

#### hg BOLIVIA.

**Breddin, G.** *Daraza carnifex* n. sp. Soc. Entomol., Zürich, 18, 1903, (100).

——— Neue Arten der Gattung *Colobasiastes* Bredd. l.c. (131).

(N 2-9053)

#### hh BRAZIL.

**Montandon, A. L.** Espèces nouvelles ou peu connues du genre *Belostoma*, appartenant aux collections du Musée National Hongrois. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (358-363).

**Uhler, P[hilip] R[heese].** Enumeration of the *Cicadidae* of Brazil in the collection of Mr. Herbert H. Smith. Baltimore, Trans. Md. Acad. Sci., 2, 1903, (1-17).

#### hm THE ANDES.

**Breddin, G.** Beitrage zur Hemipterenfauna der Anden. Berlin, SitzBer. Ges. Natf. Freunde, 1903, (366-383).

——— Neue Rhynchoten aus den Anden. Soc. Entomol., Zürich, 18, 1903, (122-124).

#### i AUSTRALASIA.

##### ia NEW GUINEA WITH ISLANDS FROM WALLACE'S LINE.

**Breddin, G.** Neue malayische Homopteren aus der Familie *Cercopidae*. Soc. Entomol., Zürich, 17, 1902, (51-52, 58-59).

——— Neue Raubwanzen. l.c. 1903, (177-178).

——— Einige neue Homopteren (9 nn. spp. in: *Capnodistes* n. g. 2, *Tetigonia* 3, *Conogonia* n. g. 3, *Haeniatoscarta* n. g.). l.c. 18, 1903, (91-92, 98-99).

**Jacobi, A.** Singcikaden von Ost-Neuguinea. Berlin, SitzBer. Ges. natf. Freunde, 1903, (10-15).

##### ib BISMARCK ARCHIPELAGO.

**Breddin, G.** Neue Raubwanzen. Soc. Entomol., Zürich, 17, 1903, (177-178).

##### ic AUSTRALIA.

**Breddin, G.** Ueber einige Tetyriden. Soc. Entomol., Zürich, 18, 1903, (57-59).

**Froggatt, W. W.** Australian *Psyllidae*. Part III. Sydney, N.S.W., Proc. Linn. Soc. N.S.Wales, **29**, 1903, (315-337, with 2 pls.).

**Goding, F. W.** A monograph of the Australian *Membracidae*. l.c. (2-41, with 1 pl.).

if VICTORIA.

**Cockerell, T[heodore] D[ru] A[lison].** *Aspidiotus hederae* in Australia. [Criticism of paper by J. Lidgett, *A. hederae* same as *A. nerii*]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (89).

**Lidgett, James.** *Aspidiotus hederae* in Australia. l.c. (43-45).

l ATLANTIC.

lb MADEIRA.

**Cockerell, T. D. A.** A new Coccid from Madeira, allied to *Coccus tuberculatus* Bouché. Entomologist, London, **36**, 1903, (261-262).

n PACIFIC.

nd SANDWICH ISLANDS.

**Koebele, A.** Report of Prof. Koebele on Lantana Scale [*Orthesia insignis*]. Honolulu, Hawaii, Rep. Com. Agric. Forestry, **1902**, 1903, (54-65).

## 4031 TAXONOMY AND SYSTEMATIC.

### GENERAL.

**Van Duzee, E. P.** Hemiptera of Beulah, New Mexico. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (107-112).

## HEMIPTERA HETEROPTERA.

### GENERAL.

**Breddin, G.** Ueber die Hopfenwanze und andere Hopfenschädlinge aus der Ordnung der Wanzen. Soc. Entomol., Zürich, **18**, 1903, (81-82).

**Montgomery, T. H., jun.** A list of the Hemiptera Heteroptera of the vicinity of Wood's Holl, Massachusetts. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (12-13).

**Warloe, H.** New Scandinavian Hemiptera Heteroptera. Entomol. Tidskr., Stockholm, **22**, 1901, (144).

## PENTATOMIDAE.

### GENERAL.

**Banks, N.** Additions to the list of New York *Pentatomidae*. New York, N.Y., J. Ent. Soc., **11**, 1903, (227).

**Breddin, G.** Ueber einige Tetyriden. Soc. Entomol., Zürich, **18**, 1903, (57-59).

**Bueno, J. R. de la Torre.** A preliminary list of the *Pentatomidae* within fifty miles of New York. New York, N.Y., J. Ent. Soc., **11**, 1903, (128-129).

——— Note on *Pentatomidae*. [Correction to New Jersey list in author's "The *Pentatomidae* within fifty miles of New York." ] l.c. (228).

### SPECIAL.

*Acanthosoma vicinia* n. sp. **Reuter, O.** Helsingfors, Ofvers. F. Vet. Soc., **44**, 1901-1902, (146).

*Adoxoplatus* n. gen., *A. comis*, *A. minax* nn. spp. Andes. **Breddin, G.** Berlin, Sitzber. Ges. natf. Freunde, **1903**, (368-369).

*Aelia* nn. spp. Shamo, Altai Mts. **Jakovlev, V.** Rev. Russ. Ent., Jaroslavl, **3**, 1903, (1-4).

——— *syriaca* n. sp. **Horváth, G.** Budapest, Ann. Hist-Nat. Mus. Nat. Hung., **1**, 1903, (403-405).

*Agonosoma dohrni* n. sp. **Schouteden, H.** Stettiner ent. Ztg., **64**, 1903, (362-363).

*Baracellus* n. gen., *B. lanceolatus* n. sp. **Distant, W. L.** Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (250-251).

*Brachyaulax majuscula* n. sp. Key Island. **Distant, W. L.** l.c. (249).

*Brachynema balfouri* n. sp. Sokotra. **Distant, W. L.** l.c. (470-480).

*Brachystethus vexillum* n. sp. Andes. **Breddin**, G. Berlin, SitzBer. Ges. Natf. Freunde, 1903, (371).

*Byrsinus pentazoni* n. sp. Chinese Turkestan. **Jakovlev**, V. Rev. Russ. Ent., Jaroslavl, 3, 1903, (377-380).

*Calliphara* nn. spp. **Distant**, W. L. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (250).

*Catadipsos* n. gen., *C. aper* n. sp. Fernando Po. **Breddin**, G. Soc. Entomol., Zürich, 18, 1903, (90).

*Catalampusa* n. gen., *C. oenops* n. sp. Andes. **Breddin**, G. Berlin, SitzBer. Ges. natf. Freunde, 1903, (369).

*Cazira* nn. spp. Sumatra. **Breddin**, G. Soc. Entomol., Zürich, 18, 1903, (33-34).

*Chrysocoris auratus* var. *sanguineiventris* n. var. **Breddin**, G. l.c. (59).

———— *sericeomicans* n. sp. Java. **Breddin**, G. l.c. (58).

———— *viridiventris* n. sp. Flores. **Breddin**, G. l.c. (74).

*Chrysodarecus* n. gen., *C. moneta* n. sp. Andes. **Breddin**, G. Berlin, SitzBer. Ges. natf. Freunde, 1903, (367).

*Coptosoma josuae* n. sp. **Horváth**, G. Budapest, Ann. Hist-Nat. Mus. Nat. Hung., 1, 1903, (400).

———— *mirabilis* n. sp. Halmaheira. **Distant**, W. L. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (248).

*Cyrtomenus vestigiatus* n. sp. Costa Rica. **Distant**, W. L. London, Trans. Ent. Soc., 1903, (525).

*Dichobothrium* (~ *Sastragala*) n. gen., *D. sastragaloidea*, *D. tenuispinum*, *D. elasmotethoides* nn. spp. **Breddin**, G. Berlin, Sitz-Ber. Ges. natf. Freunde, 1903, (195-223).

*Ectmetocara virescens* n. sp. **Distant**, W. L. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (470-471).

*Edessa* nn. spp. S. America. **Breddin**, G. Soc. Entomol., Zürich, 18, 1903, (123, 132).

*Elasmotethus minax* n. sp. **Breddin**, G. Berlin, SitzBer. Ges. natf. Freunde, 1903, (204).

*Erachiteus ventralis* n. sp. Usambara. **Breddin**, G. Soc. Entomol., Zürich, 18, 1903, (115).

*Eurydema blandum* n. sp., *E. nigricaps* Reut. var. *collare* n. var. **Horváth**, G. Budapest, Ann. Hist-Nat. Mus. Nat. Hung., 1, 1903, (407-408).

*Euschistus inflatus* n. sp. New Mexico. **Van Duzee**, E. P. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., 29, 1903, (107).

*Galasastra* (= *Elasmotethus*) n. gen., *G. salebrosa* n. sp. **Breddin**, G. Berlin, SitzBer. Ges. natf. Freunde, 1903, (205-206).

*Geotomus attar* n. sp. **Kirkaldy**, G. W. Hemiptera. Nat. Hist. Sokotra, (381-394, pl. XXIII).

*Gonopsis recurva* n. sp. Tanganyika. **Distant**, W. L. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (471).

*Graphosoma semipunctatum* Fabr., *G. lineatum* Linn., *G. rubrolineatum* Wester., *G. sidli* Horv. Beschreibung et nn. spp. **Horváth**, G. Budapest, Ann. Hist-Nat. Mag. Nat. Hung., 1, 1903, (345-354).

*Hermolaus amurensis* n. sp. **Horváth**, G. l.c. (405-406).

*Holcogaster fibulata* Germ. var. *exilis* n. var. **Horváth**, G. l.c. (406-407).

*Hyperoncus complutus* n. sp. Java. **Breddin**, G. Soc. Entomol., Zürich, 18, 1903, (66).

*Lamprocoris smaragdus* n. sp. Perak. **Breddin**, G. l.c. (33).

*Menaccarus eremita* n. sp. Transcaspija. **Jakovlev**, V. Rev. Russ. Ent., Jaroslavl, 3, 1903, (191-195).

———— *jakovlevi* n. sp. **Reuter**, O. Öfvers. F. Vet. Soc., Helsingfors, 44, 1901-1902, (145).

*Menida pocila* n. sp. Transcaspija. **Jakovlev**, V. Rev. Russ. Ent., Jaroslavl, 3, 1903, (377-380).

*Microdeuterus javanus* n. sp. **Breddin**, G. Berlin, SitzBer. Ges. Natf. Freunde, 1903, (218).

*Neodius* nn. spp. Ethiopian region. **Distant**, W. L. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, (460-470).

*Neottiglossa* Curt. 4 nn. spp., de la faune paléarctique. Crimea, Siberia centr., Russia centr. **Jakovlev**, V. E. St. Petersburg, Hor. Soc. Ent. Ross., 36, 1903, (325-331).

*Neotiglossa calva* n. sp. Sibéria centr. (Irkutsk). **Jakovlev**, V. E. l.c. (317-324).

*Nezara gentilis* n. sp. Andes. **Breddin**, G. Berlin, SitzBer. Ges. Natf. Freunde, 1903, (369).

———— *pulehricornis* n. sp. Fernando Po. **Breddin**, G. Soc. entomol., Zürich, 18, 1903, (115).

———— *satunini* n. sp. Transcaucasia. **Jakovlev**, V. Rev. Russ. Ent., Jaroslavli, 3, 1903, (191-195).

———— *viridula* L. var. *hepaticea* n. var. **Horváth**, G. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (406).

*Oncacantias* (~ *Acanthosoma*) n. gen., *O. brunneipennis* n. sp. **Breddin**, G. Berlin, SitzBer. Ges. Natf. Freunde, 1903, (219-220).

*Oncodochilus cruciatulus* n. sp. Südamerika. **Breddin**, G. Soc. Entomol., Zürich, 18, 1903, (147-149).

*Pachycoris ruth* n. sp. Andes. **Breddin**, G. Berlin, SitzBer. Ges. natf. Freunde, 1903, (366).

*Patereulus conspersus* n. sp. **Distant**, W. L. Fascic. Malay Zool., II, 1, (236).

*Philia* nn. spp. Australia. **Breddin**, G. Soc. Entomol., Zürich, 18, 1903, (57-58).

———— *dohertyi* n. sp. Jobie. **Distant**, W. L. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (249).

*Phimodera* nn. spp. N.W. Russie, Transcaucase, Altai. **Jakovlev**, V. E. St. Peterburg, Hor. Soc. Ent. Ross., 36, 1903, (183-191).

———— nn. spp. Turkestan, E. Siberia. **Jakovlev**, V. Rev. Russ. Ent., Jaroslavli, 3, 1903, (81-84).

*Podops malayensis* n. sp. **Distant**, W. L. Fascic. Malay. Zool., II, 1, (229).

*Polytes fenestra* n. sp. Peru. **Breddin**, G. Soc. Entomol., Zürich, 18, 1903, (122).

*Proctophantasta* (~ *Microdeuterus*) n. gen., *P. colax*, *P. satanas*, *P. diabolus* nn. spp. **Breddin**, G. Berlin, SitzBer. Ges. Natf. Freunde, 1903, (212-217).

*Psacasta pallida* n. sp. **Reuter**, O. Ofvers. F. Vet. Soc., Helsingfors, 44, 1901-1902, (140).

*Rhacognathus callosus* n. sp. **Horváth**, G. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (408-409).

*Risibia geniculata* n. sp. **Horváth**, G. l.c. (406).

*Sastragala guttamellis* n. sp. **Breddin**, G. Berlin, SitzBer. Ges. natf. Freunde, 1903, (203).

———— *smaragdina* n. sp. **Distant**, W. L. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (72).

*Schirus coeruleus* n. sp. **Reuter**, O. M. Ofvers. F. Vet. Soc., Helsingfors, 44, 1901-1902, (140-188).

*Sciocoris* nn. spp. **Horváth**, G. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (400-402).

———— nn. spp. Kirgizica, Shami. **Jakovlev**, V. Rev. Russ. Ent., Jaroslavli, 3, 1903, (289-293).

———— *placidus* n. sp. Transbaicalia. **Jakovlev**, V. l.c. (81-84).

*Sehirius coeruleus* n. sp. **Reuter**, O. Ofvers. F. Vet. Soc., Helsingfors, 44, 1901-1902, (142).

*Sepontia formosa* n. sp. Malayan Archipelago. **Distant**, W. L. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, (474-475).

*Stachyomia luteocaria* n. sp. **Distant**, W. L. Fascic. Malay. zool., II, 1, (233).

*Tessaratomia usumbarica* n. sp. Africa. **Breddin**, G. Soc. Entomol., Zürich, 18, 1903, (107).

*Tibilis* nn. spp. Andes. **Breddin**, G. Berlin, SitzBer. Ges. natf. Freunde, 1903, (370-371).

*Timuria* n. gen. verwandt mit *Sciocoris*. *T. melanocera* n. sp. **Horváth**, G. Budapest, Ann. Hist. Nat. Mus. Nat. Hung., 1, 1903, (402-403).

*Tropidotylus annandalei* n. sp. **Distant**, W. L. Fascic. Malay. Zool., II, 1, (225).

*Typhocoris* n. gen. S. America. **Breddin**, G. Soc. Entomol., Zürich, 18, 1903, (122-124).

## COREIDAE.

## GENERAL.

*Bergroth*, E. Ueber *Haploprocta pustulifera* Stål. Rev. Russ. Ent., Jaroslavl, 3, 1903, (32).

## SPECIAL.

*Acestra malayana* n. sp. Malay. Distant, W. L. Fascic. Malay. Zool., II, 1, (245).

*Alydus scutellatus* n. sp. New Mexico. Van Duzee, E. P. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., 29, 1903, (108).

*Anasa jucunda* n. sp. Südamerika. Breddin, G. Soc. Entomol., Zürich, 18, 1903, (147).

——— *tristis*, the squash-bug. Wood, C. M. and Conradi, A. F. Agric. Exp. Sta., New Hampshire, Durham, Bull., No. 89, 1902, (13-28, with 2 figs.); [review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., 14, 1902, (270).

*Bardistus complutus* n. sp. Andes. Breddin, G. Berlin, Sitz-Ber. Ges. Natf. Freunde, 1903, (372).

*Bothrostethus rufulus* n. sp. Transcaucasia. Jakovlev, V. Rev. Russ. Ent., Jaroslavl, 3, 1903, (191-195).

*Cochrus subferrugineus* n. sp. Andes. Breddin, G. Berlin, Sitz-Ber. Ges. Natf. Freunde, 1903, (381).

*Corizus hyalinus* Fab., an addition to the British Hemiptera. Saunders, E. Ent. Mag., London, 39, 1903, (294).

——— *robinsoni* n. sp. Malay. Distant, W. L. Fascic. Malay. Zool., II, 1, (246).

*Ctenomelynhus* n. gen., *C. brunneiventris*, *C. coxalis* nn. spp. Andes. Breddin, G. Berlin, Sitz-Ber. Ges. Natf. Freunde, 1903, (374-375).

*Derepteryx laticornis* n. sp. Breddin, G. Berlin, Sitz-Ber. Ges. Natf. Freunde, 1903, (222).

*Eubule subdepressa* n. sp. Andes. Breddin, G. l.c. (381).

*Eudarmistus* n. gen., *E. bicolor* n. sp. Andes. Breddin, G. l.c. (381-382).

*Holopterna alata*, from Johannesburg. Fry, H. Zoologist, London, (Ser. 4), 6, 1902, (392, 393).

*Holymenia* nn. spp. Südamerika. Breddin, G. Soc. Entomol., Zürich, 18, 1903, (147).

——— *parvius* n. sp. Andes. Breddin, G. Berlin, Sitz-Ber. Ges. Natf. Freunde, 1903, (382).

*Hyalymenus aterrimus* n. sp. Andes. Breddin, G. l.c. (383).

——— *calcarator* n. sp. Südamerika. Breddin, G. Soc. Entomol., Zürich, 18, 1903, (148).

*Laminiceps superbus* n. sp. Andes. Breddin, G. Berlin, Sitz-Ber. Ges. Natf. Freunde, 1903, (376).

*Leptoscelis matronalis* n. sp. Andes. Breddin, G. l.c. (380).

*Lycambes andinola* n. sp. Andes. Breddin, G. l.c. (372).

*Malvana lauta* n. sp. Andes. Breddin, G. l.c. (381).

*Melucha* nn. spp. Andes. Breddin, G. l.c. (379).

*Meluchopetalops* n. gen., *M. banausus* n. sp. Andes. Breddin, G. l.c. (378).

*Myrmus hirsutus* n. sp. Crimea. Jakovlev, V. Rev. Russ. Ent., Jaroslavl, 3, 1903, (289-293).

*Nematopus* nn. spp. Südamerika. Breddin, G. Soc. Entomol., Zürich, 18, 1903, (147).

*Petalops* nn. spp. Andes. Breddin, G. Berlin, Sitz-Ber. Ges. natf. Freunde, 1903, (377).

*Porta* n. gen., *P. gracilis* n. sp. Malay. Distant, W. L. Fascic. Malay. Zool., II, 1, (245-246).

*Priptychomia* (= *Elasmomia*) n. gen., *P. euryptera* n. sp. Breddin, G. Berlin, Sitz-Ber. Ges. Natf. Freunde, 1903, (221).

*Stenometaopodus* n. gen., *S. V-luteum* n. sp. Andes. Breddin, G. l.c. (366-383).

*Stenoscelida* nn. spp. Andes. Breddin, G. l.c. (376).

*Trachelium mimeticum* n. sp. Südamerika. Breddin, G. Soc. Entomol., Zürich, 18, 1903, (147).

## BERYTIDAE.

*Berytus nigrolineatus* n. sp. Transcaucasia. **Jakovlev**, V. Rev. Russ. Ent., Jaroslavli, 3, 1903, (379).

## LYGAEIDAE.

## GENERAL.

**Breddin**, G. Ueber die Hopfenwanzen und andere Hopfenschädlinge aus der Ordnung der Wanzen. Soc. Entomol., Zürich, 18, 1903, (81-82).

## SPECIAL.

*Abdolominus* n. gen., *A. intaminatus*, *A. picinus* nn. spp. **Distant**, W. L. Fauna of British India. . . Rhynchota, Vol. ii (Hepteroptera). Pt. i. London, 1903, (90-91).

*Acroleucus* nn. spp. Südamerika. **Breddin**, G. Soc. Entomol., Zürich, 18, 1903, (148).

*Altomarus* n. gen., *A. greeni* n. sp. **Distant**, W. L. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (72-73).

*Aphanus* nn. spp. **Distant**, W. L. Fauna of British India. . . Rhynchota, Vol. ii (Hepteroptera). Pt. i. London, 1903, (81).

\_\_\_\_\_ *mirabilis* n. sp. West Africa. **Distant**, W. L. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (471-472).

*Arrianus* n. gen., *A. exearatus* n. sp. **Distant**, W. L. Fauna of British India. . . Rhynchota, Vol. ii (Hepteroptera). Pt. i. London, 1903, (74).

*Artemidorus* n. gen., *A. pressus* n. sp. **Distant**, W. L. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (73-74).

\_\_\_\_\_ nn. spp. **Distant**, W. L. l.c. 12, (252).

\_\_\_\_\_ *noctis* n. sp. Malay. **Distant**, W. L. Fascic. Malay. Zool., II, 1, (248).

*Aulacopeltus minor* n. sp. Nyassa. **Distant**, W. L. Cape Town, Ann. S. Afric. Mus., 3, 1903, (57).

*Belonochilus numenius* on *Plantanus occidentalis*. **Heidemann**, O. Washington, D.C., Proc. Ent. Soc., 5, 1902, (11-12).

*Blissus* in Minnesota. **Washburn**, F. L. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., No. 40, 1903, (32-34).

\_\_\_\_\_ *leucopterus* dimorphism. **Garber**, J. F. Wood's Holl, Mass., Mar. Biol. Lab. Bull., 5, 1903, (330-335, with text-fig.).

\_\_\_\_\_ **Stedman**, J. M. Agric. Exp. Sta., Missouri, Missouri Station Bull., No. 51, 1902, (115-142, with fig.) [Review] Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., 14, 1902, (270).

*Boccharis* n. gen., *B. significatus* n. sp. **Distant**, W. L. Fauna of British India. *Rhynchota*, Vol. ii (Heteroptera), Pt. i. London, 1903, (36).

*Boebequius* n. gen., *B. latus* n. sp. **Distant**, W. L. l.c. (64, 65).

*Budaeus* n. gen., *B. brevipennis* n. sp. **Distant**, W. L. l.c. (76).

*Cligenes patricius* n. sp. **Distant**, W. L. l.c. (72).

*Colobasiastes* nn. spp. Bolivia. **Breddin**, G. Soc. Entomol., Zürich, 18, 1903, (131).

*Critobulus* n. gen., *C. insignis* n. sp. **Distant**, W. L. Fauna of British India. . . *Rhynchota*, Vol. ii (Heteroptera), Pt. i. London, 1903, (77).

*Dieuches* nn. spp. **Distant**, W. L. l.c. (83-85).

*Dinomachus sikhimensis* n. sp. **Distant**, W. L. l.c. (38).

*Entisberus* n. gen., *E. archetypus* n. sp. **Distant**, W. L. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (74-75).

*Fontejanus* n. gen., *F. usmanni* n. sp. Bombay. **Breddin**, G. Soc. Entomol., Zürich, 18, 1903, (75).

*Geocoris* nn. spp. **Distant**, W. L. Fauna of British India. . . *Rhynchota*, Vol. ii (Heteroptera), Pt. i. London, 1903, (27-31).

*Gonatas* nn. spp. **Distant**, W. L. l.c. (90).

\_\_\_\_\_ *costaricensis* n. sp. Costa Rica. **Distant**, W. L. London, Trans. Ent. Soc., 1903, (526).

*Gonsalvus* n. gen., *G. typus* n. sp. **Distant**, W. L. Fauna of British India. . . *Rhynchota*, Vol. ii (Heteroptera), Pt. i. (93).

*Graptolethrus dizoni* n. sp. **Distant**, W. L. l.c. (10).

*Ipshierates* n. gen. **Distant**, W. L. l.c. (27).

*Lachnophorus* nn. spp. **Distant**, W. L. l.c. (69-70).

*Lemnius* n. gen., *L. ovatus* n. sp. **Distant**, W. L. l.c. (66-67).

*Ligyrocoris constrictus*. **Heidemann**, O. Washington, D.C., Proc. Ent. Soc., 5, 1903, (155-157).

*Lygaeosoma orientale* n. sp. **Distant**, W. L. Fauna of British India . . . *Rhynchota*, Vol. ii (Heteroptera), Pt. i. London, 1903, (13).

*Lygaeus* nn. spp. **Distant**, W. L. l.c. (7, 8).

*Macropes* nn. spp. **Distant**, W. L. l.c. (26).

— *humboldti* n. sp. New Guinea. **Distant**, W. L. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (251).

*Melanocoryphus putoni* n. sp. **Reuter**, O. Öfers. F. Vet. Soc., Helsingfors, 44, 1901-1902, (149).

*Naudarensia* n. gen., *N. pedata* n. sp. **Distant**, W. L. Fauna of British India . . . *Rhynchota*, Vol. ii (Hepteroptera) Pt. i. London, 1903, (86-87).

*Nysius* nn. spp. **Distant**, W. L. l.c. (18).

— *minor* als Schädling in Australien. **Ludwig**, F. Centralbl. Bakt., Jena, Abt. 2, 10, 1903, (184).

*Ostacops occidentalis* n. sp. **Distant**, W. L. Fauna of British India . . . *Rhynchota*, Vol. ii (Heteroptera) Pt. i. London, 1903, (4).

*Oxycarenus heraldus* n. sp. **Distant**, W. L. l.c. (44).

*Pachygrontha dizoni* n. sp. **Distant**, W. L. l.c. (42).

*Perigenes fallax* n. sp. **Heidemann**, O. Washington, D.C., Proc. Ent. Soc., 5, 1903, (155-157).

*Peritrechus aeruginosus* n. sp. **Distant**, W. L. Fauna of British India . . . *Rhynchota*, Vol. ii (Hepteroptera) Pt. i. London, 1903, (76).

*Phlegyas burmanus* n. sp. **Distant**, W. L. l.c. (40).

*Pinkimerus* n. gen., *P. sesquipedalis* n. sp. **Distant**, W. L. l.c. (22).

*Polyerates nexus* n. sp. **Distant**, W. L. l.c. (64).

*Rhyparochromus* (*Aphanus*, *Pachymerus*) *vulgaris* ein neuer Hopfenschädling. **Remisch**, F. Soc. Entomol., Zürich, 16, 1903, (153-155).

*Sadoletus* n. gen., *S. validus* n. sp. **Distant**, W. L. Fauna of British India. *Rhynchota*, Vol. ii (Heteroptera) Pt. i. London, 1903, (37).

*Scolopostethus ornandus* n. sp. **Distant**, W. L. l.c. (93).

*Sinierus cingalensis* n. sp. **Distant**, W. L. l.c. (65).

*Suffenus* n. gen. **Distant**, W. L. l.c. (75).

*Thebanus* n. gen., *T. politus* n. sp. **Distant**, W. L. l.c. (67).

*Tropistethus pallidipes* n. sp. **Reuter**, O. Öfers. F. Vet. Soc., Helsingfors, 44, 1901-1902, (149).

*Udalricus* n. gen., *U. scutellatus* n. sp. **Distant**, W. L. l.c. (50).

## TINGIDAE.

*Acalypta sibirica* n. sp. Siberia centr. **Jakovlev**, V. E. Rev. Russ. Ent., Jaroslavl, 3, 1903, (4).

*Ammianus* n. gen. **Distant**, W. L. Fauna of British India . . . *Rhynchota*, Vol. ii (Hepteroptera) Pt. i. London, 1903, (136).

*Ayrerus* n. gen. **Distant**, W. L. l.c. (140).

*Cantacader infuscatus* n. sp. **Distant**, W. L. l.c. (124).

*Celantia* n. gen. **Distant**, W. L. l.c. (137).

*Collinutius* n. gen. **Distant**, W. L. l.c. (134).

*Dictyonota idonea* n. sp. **Tauria**. **Jakovlev**, V. E. Rev. Russ. Ent., Jaroslavl, 3, 1903, (191-195).

*Eteoneus* n. gen. for *Serenithia dilatata*. **Distant**, W. L. Fauna, Brit. India *Rhynchota*, Vol. II, pt. 1, (129).



*Monanthia* nn. spp. Crimea, Transcaspia, Mongolia. **Jakovlev**, V. *Rev. Russ. Ent.*, Jaroslavl, **3**, 1903, (1-4).

— (*Platychila*) *taurica* n. sp. Crimea. **Jakovlev**, V. *l.c.* (289-293).

*Penotius* n. gen., *P. jalorensis* n. sp. Malay. **Distant**, W. L. *Fascic. Malay. Zool.*, II, **1**, (254).

*Urentius* n. gen., *U. echinus* n. sp. **Distant**, W. L. *Fauna of British India Rhynchota*, Vol. ii (Hepteroptera), Pt. i. London, 1903, (134).

*Aradus niger* in New York. **Van Dusee**, E. P. Philadelphia, Pa., *Ent. News Acad. Nat. Sci.*, **13**, 1902, (23).

— *serbicus* Horv., Beschreibung. **Horváth**, G. Budapest, *Ann. Hist.-Nat. Mus. Nat. Hung.*, **1**, 1903, (12-13).

*Neuroctenus affinis* n. sp. **Distant**, W. L. *Fauna of British India Rhynchota*, Vol. ii (Hepteroptera), Pt. i. London, 1903, (165).

— *elongatus* n. sp. Ohio. **Osborn**, H. *Ohio Nat.*, Columbus, Ohio, **4**, 1903, (41).

### PYRRHOCORIDAE.

*Antilochus pygmaeus* n. sp. **Distant**, W. L. *Fauna of British India Rhynchota*, Vol. ii (Hepteroptera), Pt. i. London, 1903, (102).

*Courtesius* n. gen., *C. illuminatus* n. sp. **Distant**, W. L. *l.c.* (114).

*Delacampius typicus* n. sp. Malay. **Distant**, W. L. *Fascic. Malay. Zool.*, II, **1**, (253).

*Dermatinus lugubris* n. sp. **Distant**, W. L. *Fauna of British India Rhynchota*, Vol. ii (Hepteroptera), Pt. i. London, 1903, (115).

*Dysdercus migratorius* n. sp. **Distant**, W. L. *l.c.* (126).

*Euscopus gestroi* n. sp. **Distant**, W. L. *l.c.* (106).

*Ipitha grandis* n. sp. **Distant**, W. L. *l.c.* (97).

*Scantius pallens* n. sp. **Distant**, W. L. *l.c.* (117).

*Theraneis amabilis* n. sp. Bolivia. **Bredden**, G. *Soc. Entomol.*, Zürich, **18**, 1903, (122).

### ARADIDAE.

#### GENERAL.

**Osborn**, H. *Aradidae* of Ohio [Contributions from the Department of Zoology and Entomology, No. 14.] *Ohio Nat.*, Columbus, Ohio, **4**, 1903, (36-42).

#### SPECIAL.

*Aradus duryi* n. sp. Ohio. **Osborn**, H. *Ohio Nat.*, Columbus, Ohio, **4**, 1903, (39).

### HEBRIDAE.

*Hebrus orientalis* n. sp. **Distant**, W. L. *Fauna of British India Rhynchota*, Vol. ii (Hepteroptera), Pt. i. London, 1903, (167).

### HYDROMETRIDAE.

*Alardus* n. gen., *A. typicus* n. sp. Malay Peninsula. **Distant**, W. L. *Ann. Mag. Nat. Hist.*, London, (Ser. 7), **12**, 1903, (475).

*Baptista* n. gen., *B. gestroi* n. sp. **Distant**, W. L. *Fauna of British India Rhynchota*, Vol. ii (Hepteroptera), Pt. i. London, 1903, (173).

*Gerris selma* n. sp. India. **Kirkaldy**, G. W. *Entomologist*, London, **36**, 1903, (181).

*Halobates sexualis* n. sp. Malay. **Distant**, W. L. *Fascic. Malay. Zool.*, II, **1**, (258).

*Metrocoris* nn. spp. Nigeria, Natal. **Distant**, W. L. *Ann. Mag. Nat. Hist.*, London, (Ser. 7), **12**, (472-473).

— *illustrarius* n. sp. **Distant**, W. L. *Fauna of British India Rhynchota*, Vol. ii (Hepteroptera), Pt. i. London, 1903, (189).

— *nigrofasciatus* n. sp. Malay. **Distant**, W. L. *Fascic. Malay. Zool.*, II, **1**, (257).

*Microvelia repentina* n. sp. **Distant**, W. L. *Fauna of British India Rhynchota*, Vol. ii (Hepteroptera), Pt. i. London, 1903, (174).

— *singalensis* n. sp. Ceylon. **Kirkaldy**, G. W. *Entomologist*, London, **36**, 1903, (180-181).

*Onychotrechus* n. gen., *O. rhezenor* n. sp. South India. **Kirkaldy**, G. W. *l.c.* (44-45).

*Perittopus rufus* n. sp. Tenasserim. **Distant**, W. L. *Fauna Brit. India. Rhynchota*, II, pt. 1, 1903, (175).

*Rhagodelia insignis* n. sp. Malay. **Distant**, W. L. *Fascic. Malay. Zool.*, II, 1, (256).

—— *maculata* n. sp. Nigeria. **Distant**, W. L. *Ann. Mag. Nat. Hist.*, London, (Ser. 7), 12, 1903, (472).

### HENIOCEPHALIDÆ.

*Hemiocephalus robustus* n. sp. **Distant**, W. L. *Fauna of British India. Rhynchota*, Vol. II (Heteroptera), Pt. i. London, 1903, (195).

### PHYMATIDÆ.

*Carcinochelis determinatus* n. sp. Malay. **Distant**, W. L. *Fascic. Malay. Zool.*, II, 1, (255).

*Glossopelta truncata* n. sp. **Distant**, W. L. *Fauna of British India. Rhynchota*, Vol. ii (Heteroptera), Pt. i. London, 1903, (150).

### REDUVIIDÆ.

#### GENERAL.

**Breddie**, G. Einige neue südamerikanische Ectrichodiinen. *Soc. Entomol.*, Zürich, 18, 1903, (65).

#### SPECIAL.

*Acanthaspis* nn. spp. **Distant**, W. L. *Ann. Mag. Nat. Hist.*, London, (Ser. 7), 11, 1903, (354-356).

—— nn. spp. S. Africa. **Distant**, W. L. *Cape Town, Ann. S. Afric. Mus.*, 3, 1903, (46-52).

*Afrocastra* n. gen., *A. procera* n. sp. Usambara. **Breddie**, G. *Soc. Entomol.*, Zürich, 18, 1903, (116).

*Agriolestes melanopterus* n. sp. Burmah. **Distant**, W. L. *Ann. Mag. Nat. Hist.*, London, (Ser. 7), 11, 1903, (359).

*Agriosphodrus perelegans* n. sp. Tonkin. **Breddie**, G. *Soc. Entomol.*, Zürich, 17, 1903, (170).

*Agyrius othello* n. sp. Borneo. **Breddie**, G. *l.c.* (170).

*Alloeocranum maculosum* n. sp. Malay. **Distant**, W. L. *Fascic. Malay. Zool.*, II, 1, (260).

*Alloerhynchus marginalis* n. sp. Burma. **Distant**, W. L. *Entomologist*, London, 36, 1903, (1).

*Amauroclopis ornatus* n. sp. Brazil. **Distant**, W. L. *Ann. Mag. Nat. Hist.*, London, (Ser. 7), 11, 1903, (205).

*Androclous* nn. spp. **Breddie**, G. *Soc. Entomol.*, Zürich, 17, 1903, (177-178).

*Apiomerus lobulatus* n. sp. Südamerika. **Breddie**, G. *l.c.* 18, (148).

*Arceus annulatus* n. sp. New Guinea. **Distant**, W. L. *Ann. Mag. Nat. Hist.*, London, (Ser. 7), 11, 1903, (359).

—— *bicolor* n. sp. Malay. **Distant**, W. L. *Fascic. Malay. Zool.*, II, 1, (265).

—— *sicarius* n. sp. New Guinea. **Breddie**, G. *Soc. Entomol.*, Zürich, 17, 1903, (169).

*Astinus siamensis* n. sp. Siam. **Distant**, W. L. *Ann. Mag. Nat. Hist.*, London, (Ser. 7), 11, 1903, (248-249).

*Aulacoclopis* n. gen., *A. cyaneoniger* n. sp. **Breddie**, G. *Soc. Entomol.*, Zürich, 17, 1903, (177-178).

*Biasticus* nn. spp. Java. **Breddie**, G. *l.c.* (177-178).

—— *horsfeldi* n. sp. Java. **Distant**, W. L. *Ann. Mag. Nat. Hist.*, London, (Ser. 7), 11, 1903, (208).

*Camelocastra* n. gen. (~ *Castra*) *C. javana*, *C. borneensis* nn. spp. **Breddie**, G. *Zool. Anz.*, Leipzig, 26, 1903, (508-514).

*Caprocethera* (~ *Carcinomma*) n. gen., *C. cave* n. sp. **Breddie**, G. *Berlin, SitzBer. Ges. natf. Freunde*, 1903, (115-116).

*Castolus nigriiventris* n. sp. Südamerika. **Breddie**, G. *Soc. Entomol.*, Zürich, 18, 1903, (148).

*Castrucci* n. gen., *C. insignis* n. sp. N.W. Australia. **Distant**, W. L. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (356-357).

*Censorinus* n. gen., *C. ferrugineus* n. sp. S. Africa. **Distant**, W. L. Cape Town, Ann. S. Afric. Mus., 3, 1903, (57).

*Centrogonus ducalis* n. sp. W. Australia. **Distant**, W. L. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (352).

— *ochreipennis* n. sp. **Bred-**  
**din**, G. Berlin, SitzBer. Ges. natf. Freunde, 1903, (120).

*Cerellius* n. gen., *C. typicus*, *C. nigricans* nn. spp. Madagascar. **Distant**, W. L. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (364-365).

*Cerilocus* nn. spp. **Bred-**  
**din**, G. Berlin, SitzBer. Ges. natf. Freunde, 1903, (114-115).

— nn. spp. S. Africa.  
**Distant**, W. L. Cape Town, Ann. S. Afric. Mus., 3, 1903, (47-52).

*Cethera maculipennis* n. sp. **Bred-**  
**din**, G. Berlin, SitzBer. Ges. natf. Freunde, (111-129).

*Cleontes genitus* n. sp. S. Africa.  
**Distant**, W. L. Cape Town, Ann. S. Afric. Mus., 3, 1903, (53).

*Cleptriola* n. gen., *C. nigrolutea*, *C. subobscura* nn. spp. Africa. **Bred-**  
**din**, G. Soc. Entomol., Zürich, 18, 1903, (107-108).

*Coranopsis rossi* n. sp. S. Africa.  
**Distant**, W. L. Cape Town, Ann. S. Afric. Mus., 3, 1903, (48).

*Coranus atricapillus* n. sp. **Distant**, W. L. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903.

*Cosmocleptus rubromarginatus* n. sp. Philippine Islands. **Distant**, W. L. l.c. (249-250).

*Cosmolestes insignis* n. sp. S. Africa.  
**Distant**, W. L. Cape Town, Ann. S. Afric. Mus., 3, 1903, (47).

*Cricetopareis* n. gen., *C. boliviana* n. sp. Bolivia. **Bred-**  
**din**, G. Soc. Entomol., Zürich, 18, 1903, (65).

*Cutocoris fasciativentris* n. sp. E. Asia. **Bred-**  
**din**, G. l.c. 17, (170).

*Cydnocoris tabularis* n. sp. **Distant**, W. L. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (245).

*Daraza carnifex* n. sp. **Bred-**  
**din**, G. Soc. Entomol., Zürich, 18, 1903, (100).

*Diplosiacaanthia* (~ *Centrogonus*) n. gen., *D. monticola* n. sp. **Bred-**  
**din**, G. Berlin, SitzBer. Ges. natf. Freunde, 1903, (121-122).

*Domnus coloratus* n. sp. British East Africa. **Distant**, W. L. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (360-361).

*Ectrichodia* nn. spp. Sumatra, Assam, Borneo. **Bred-**  
**din**, G. Zool. Anz., Leipzig, 28, 1903, (512-513).

*Edocla* nn. spp. **Distant**, W. L. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (353-354).

*Endochus* nn. spp. **Distant**, W. L. l.c. (76).

— *carbonarius* n. sp. Assam,  
**Bred-**  
**din**, G. Soc. Entomol., Zürich, 17, 1903, (170).

— *migratorius* n. sp. Hong Kong. **Distant**, W. L. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (246).

— *modestus* n. sp. N. W. Australia. **Distant**, W. L. l.c. (360).

*Epidaus* nn. spp. New Guinea.  
**Distant**, W. L. l.c. (247).

*Eugubinus* n. gen., *E. araneus* n. sp. Bombay. **Distant**, W. L. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (253).

*Eulyes sanguinolentus* n. sp. **Distant**, W. L. l.c. (213).

*Forestus* n. gen., *F. typicus*, *F. montanus*, *F. spinosus*, *F. inermis* nn. spp. Sikhim. **Distant**, W. L. l.c. (251-253).

*Gardena bicolor* n. sp. **Distant**, W. L. Fauna of British India. . . . Rhynchota, Vol. ii. (Hepteroptera), Pt. i, London, 1903, (214).

*Gerbilius confluens* n. sp. Malay. **Distant**, W. L. Fascic. Malay. Zool., II, 1, (260).

*Ghilianella phasma* n. sp. **Distant**, W. L. Fauna of British India. . . . Rhynchota, Vol. ii. (Hepteroptera) Pt. i. London, 1903, (211).

*Gomesius* n. gen., *G. predatorius* n. sp. **Distant**, W. L. l.c. (212).

*Graptoclopius pallascens* n. sp. New Guinea. **Distant**, W. L. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (207-208).

*Haematoloecha folkiensis* n. sp.  
China. **Distant**, W. L. l.c. 12, (476).

———— *morosa* n. sp. Tonkin.  
**Breddie**, G. Zool. Anz., Leipzig, 26,  
1903, (511).

*Harpactor* nn. spp. **Distant**, W. L.  
Ann. Mag. Nat. Hist., London, (Ser. 7),  
11, 1903, (75).

———— nn. spp. E. Africa. Hong  
Kong. **Distant**, W. L. l.c. (205).

———— *paludatus* n. sp. S. Africa,  
**Distant**, W. L. Cape Town, Ann. S.  
Afric. Mus., 3, 1903, (55).

*Helonotus* nn. spp. Malay Archipelago  
and Sumatra. **Distant**, W. L. Ann.  
Mag. Nat. Hist., London, (Ser. 7), 11,  
1903, (363-364).

*Heteropinus* (~ *Staliastes*) n. gen.,  
*H. mollis* n. sp. **Breddie**, G. Berlin,  
SitzBer. Ges. natf. Freunde, 1903, (112-  
113).

*Hexamocerus junodi* n. sp. S. Africa.  
**Distant**, W. L. Cape Town, Ann. S.  
Afric. Mus., 3, 1903, (59).

*Holotrichius insularis* n. sp. Sokotra.  
**Distant**, W. L. Ann. Mag. Nat. Hist.,  
London, (Ser. 7), 12, 1903, (479).

*Homalosphodrus abdominalis* n. sp.  
**Distant**, W. L. l.c. 11, (211).

*Inara curraz* n. sp. **Breddie**, G.  
Berlin, SitzBer. Ges. natf. Freunde,  
1903, (116).

*Iphithereuta* n. gen., *I. longipennis*.  
n. sp. **Breddie**, G. l.c. (122-123).

*Irantha biseratensis* n. sp. Malay.  
**Distant**, W. L. Fascic. Malay. Zool., 11,  
1, (267).

———— *bramarbas* n. sp. Sumatra.  
**Breddie**, G. Soc. Entomol., Zürich, 17,  
1903, (177-178).

———— *doreyana* n. sp. **Distant**,  
W. L. Ann. Mag. Nat. Hist., London,  
(Ser. 7), 11, 1903, (366-367).

*Ichnonyctes alatus* n. sp. **Distant**,  
W. L. Fauna of British India. . . .  
Rhynchota, Vol. ii (Hepteroptera) Pt. i.  
London, 1903, (217).

*Junghuhnidia* (~ *Crocidaeus*) n. gen.,  
*J. cruenta* n. sp. **Breddie**, G. Berlin,  
SitzBer. Ges. natf. Freunde, 1903, (124),

*Khafra modeeta* n. sp. Nyssaland.  
**Distant**, W. L. Cape Town, Ann. S.  
Afric. Mus., 3, 1903, (59).

*Lenaeus marmoratus* n. sp. **Breddie**,  
G. Berlin, SitzBer. Ges. natf. Freunde,  
1903, (113).

———— *ulysses* n. sp. **Distant**,  
W. L. Ann. Mag. Nat. Hist., London,  
(Ser. 7), 11, 1903, (356).

*Leptomendis* n. gen., *L. bipartita* n. sp.  
Cameroons. **Breddie**, G. Zool. Anz.,  
Leipzig, 26, 1903, (514).

*Libyomendis* n. gen., *L. haematobapha*  
n. sp. Fernando Po. **Breddie**, G. Soc.  
Entomol., Zürich, 18, 1903, (115).

*Lisarda* nn. spp. **Distant**, W. L.  
Fauna of British India. . . . Rhyn-  
chota, Vol. ii (Hepteroptera) Pt. i. Lon-  
don, 1903, (238-239).

———— *aethiopica* n. sp. British  
E. Africa. **Distant**, W. L. Ann. Mag.  
Nat. Hist., London, (Ser. 7), 11, 1903,  
(352).

*Lopodytes mashonae* n. sp. S. Africa.  
**Distant**, W. L. Cape Town, Ann. S.  
Afric. Mus., 3, 1903, (53).

*Loricerus rufipictus* n. sp. Cameroons.  
**Breddie**, G. Zool. Anz., Leipzig, 26,  
1903, (513).

*Lutea feana* n. sp. Burma. **Distant**,  
W. L. Entomologist, London, 36, 1903,  
(1).

———— *malayana* n. sp. Malay.  
**Distant**, W. L. Fascic. Malay. Zool.,  
11, 1, (258).

*Margasus* nn. spp. E. Africa. **Distant**,  
W. L. Cape Town, Ann. S. Afric., 3,  
1903, (62).

———— *luridus* n. sp. Madagascar.  
**Distant**, W. L. Ann. Mag. Nat. Hist.,  
London, (Ser. 7), 11, 1903, (361).

*Mendis aemula* n. sp. Borneo.  
**Breddie**, G. Zool. Anz., Leipzig, 26,  
1903, (511).

*Microsanta* n. gen. (~ *Santisia*), *M.*  
*aurantiaca*, *M. sanguinea* nn. spp.  
**Breddie**, G. l.c. (509).

*Mirambulus morio* n. sp. Bolivia.  
**Distant**, G. Soc. Entomol., Zürich, 18,  
1903, (108).

*Myiophanes* nn. spp. **Distant**, W. L.  
Fauna of British India. . . . Rhyn-  
chota, Vol. ii (Hepteroptera) Pt. i.  
London, 1903, (205).

*Myiophanes pilipes* n. sp. Richmond  
River. **Distant**, W. L. Ann. Mag.  
Nat. Hist., London, (Ser. 7), 12, 1903,  
(253).

*Nabis telomi* n. sp. Malay. Distant, W. L. Fascic. Malay. Zool., II, 1, (268).

*Nagusta* nn. spp. S. Africa. Distant, W. L. Cape Town, Ann. S. Afric. Mus., 3, 1903, (49, 54).

— *calamobata* n. sp. Java, Breddin, G. Soc. Entomol., Zürich, 17, 1903, (177–178).

*Nalata armiventris* n. sp. Breddin, G. l.c. (108).

*Narsetes* n. gen., *N. longinus* n. sp. Distant, W. L. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (358).

*Onococephalus* nn. spp. Distant, W. L. Fauna of British India. Rhynchota, Vol. ii (Hepteroptera) Pt. i. London, 1903, (228–233).

*Opiathoplatys majusculus* n. sp. Distant, W. L. Fauna of British India Rhynchota, Vol. ii (Hepteroptera), Pt. i, London, 1903, (222).

*Opisthoplatys* nn. spp. Breddin, G. Soc. Entomol., Zürich, 17, 1903, (177–178).

*Paloptus* nn. spp. New Guinea and Malay Archipelago. Distant, W. L. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (361–362).

*Panthous bimaculatus* n. sp. S. India. Distant, W. L. l.c. (249).

— *tarsatus* n. sp. Distant, W. L. l.c. (76).

*Pasiropsis morio* n. sp. Breddin, G. Berlin, SitzBer. Ges. natf. Freunde, 1903, (117).

*Petalochirus* nn. spp. Malay. Distant, W. L. Fascic. Malay. Zool., II, 1, (259–260).

*Phasmatorcoris* n. gen., *P. spectrum* n. sp. Südamerika. Breddin, G. Soc. Entomol., Zürich, 18, 1903, (148).

*Phonergates imperator* n. sp. Breddin, G. Berlin, SitzBer. Ges. natf. Freunde, 1903, (115).

— *quadrimaculatus* n. sp. S. Africa. Distant, W. L. Cape Town, Ann. S. Afric. Mus., 3, 1903, (46).

*Phorticus cingalensis* n. sp. Ceylon. Distant, W. L. Entomologist, London, 36, 1903, (2).

*Physoderus* nn. spp. Breddin, G. Berlin, SitzBer. Ges. natf. Freunde, 1903, (125–127).

*Physorhynchus* nn. spp. Transvaal, Mashonaland, Nyassaland. Distant, W. L. Cape Town, Ann. S. Afric. Mus., 3, 1903, (47, 53, 60, 61).

*Pirates* nn. spp. Distant, W. L. l.c. (59).

*Platerus* n. gen. *P. pilcheri* n. sp. Sikhim. Distant, W. L. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (247–248).

*Platyeris elegans* n. sp. Westafrika. Breddin, G. Soc. Entomol., Zürich, 18, 1903, (92–100).

*Ploiaria greeni* n. sp. Distant, W. L. Fauna of British India Rhynchota, Vol. ii, (Hepteroptera), Pt. i, London, 1903, (207).

*Ploiariola contaminata* n. sp. Malay. Distant, W. L. Fascic. Malay. Zool., II, 1, (258).

*Plynus santosioides* n. sp. Fernando Po. Breddin, G. Soc. Entomol., Zürich, 18, 1903, (107).

*Polidius australis* n. sp. Australia. Distant, W. L. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (251).

*Polytozus* nn. spp. Breddin, G. Soc. Entomol., Zürich, 17, 1903, (177).

— *pallascens* n. sp. Ceylon. Distant, W. L. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (257).

*Pothea haematogaster* n. sp. Bolivia. Breddin, G. Soc. Entomol., Zürich, 18, 1903, (108).

*Pristhesancus* nn. spp. Breddin, G. l.c. 17, (177–178).

— nn. spp. Distant, W. L. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (77).

— nn. spp. New Guinea, Queensland. Distant, W. L. l.c. (362–363).

— *wallacei* n. sp. New Guinea. Distant, W. L. l.c. (250).

*Ptilomera* nn. spp. Breddin, G. Soc. Entomol., Zürich, 17, 1903, (147–148).

*Reduvius mashonae* n. sp. S. Africa. Distant, W. L. Cape Town, Ann. S. Afric. Mus., 3, 1903, (52).

— (*Opicaterus*) *semenovi* n. sp. Buchara. Jakovlev, V. Rev. Russ. Ent., Jaroslavl, 3, 1903, (289–293).

*Rhinginia haenschii* n. sp. Ecuador.  
**Breddin**, G. Soc. Entomol., Zürich, **18**,  
 1903, (65).

*Ricolla* nn. spp. **Distant**, W. L.  
 Ann. Mag. Nat. Hist., London, (Ser. 7),  
**11**, 1903, (359-360).

*Santosia schultheissi* n. sp. Sumatra.  
**Breddin**, G. Zool. Anz., Leipzig, **26**,  
 1903, (509).

*Scadra rufithorax* n. sp. Tsu-sima.  
**Breddin**, G. l.c. (510).

*Schultheissidia* (~ *Velitra*) n. gen.,  
*S. mitis* n. sp. **Breddin**, G. Berlin,  
 SitzBer. Ges. natf. Freunde, **1903**, (114).

*Scipinia arenacea* n. sp. Queens-  
 land. **Distant**, W. L. Ann. Mag. Nat.  
 Hist., London, (Ser. 7), **11**, 1903, (366).

*Sindala purpurascens* n. sp. Brazil.  
**Distant**, W. L. l.c. (365-366).

*Sinea* spp., *S. confusa* n. sp. **Caudell**,  
 A. N. New York, N.Y., J. Ent. Soc.,  
**9**, 1901, (1-11, with pl.).

*Sirthenea africana* n. sp. S. Africa.  
**Distant**, W. L. Cape Town, Ann. S.  
 Afric. Mus., **3**, 1903, (47).

*Sphedanocoris camerunensis* n. sp.  
**Breddin**, G. Berlin, SitzBer. Ges. natf.  
 Freunde, **1903**, (128).

*Sphedanolestes* nn. spp. **Breddin**, G.  
 Soc. Entomol., Zürich, **17**, 1903, (177-  
 178).

———— nn. spp. **Distant**, W. L.  
 Ann. Mag. Nat. Hist., London, (Ser. 7),  
**11**, 1903, (209-211).

———— *annulipes* n. sp. **Distant**,  
 W. L. l.c. (75-76).

———— *singularis* n. sp. **Distant**,  
 W. L. Cape Town, Ann. S. Afric. Mus.,  
**3**, 1903, (61).

*Spiniger* nn. spp. S. America.  
**Breddin**, G. Soc. Entomol., Zürich, **18**,  
 1903, (108-114).

*Staliastes melancholicus* n. sp.  
**Breddin**, G. Berlin, SitzBer. Ges. natf.  
 Freunde, **1903**, (113).

*Stenolaemus* nn. spp. India. **Distant**,  
 W. L. Ann. Mag. Nat. Hist., London,  
 (Ser. 7), **11**, 1903, (256).

*Stenolaemus marshalli* n. sp. S. Africa.  
**Distant**, W. L. Cape Town, Ann. S.  
 Afric. Mus., **3**, 1903, (51).

*Sycanus obtusifurcatus* n. sp. **Bred-  
 din**, G. Soc. Entomol., Zürich, **17**,  
 1903, (170).

*Tetrozia* nn. spp. **Breddin**, G. Ber-  
 lin, SitzBer. Ges. natf. Freunde, **1903**,  
 (117-120).

———— *blanda* n. sp. Fernando  
 Po. **Breddin**, G. Soc. Entomol., Zürich,  
**18**, 1903, (82).

*Tiarodes picturatus* n. sp. **Distant**,  
 W. L. Ann. Mag. Nat. Hist., London,  
 (Ser. 7), **11**, 1903, (357).

———— *waterstradti* n. sp. **Bred-  
 din**, G. Berlin, SitzBer. Ges. natf.  
 Freunde, **1903**, (111).

*Tiarodurganda* n. gen., *T. apicalis*  
 n. sp. **Breddin**, G. l.c. (112).

*Timotheus* n. gen., *T. peringueyi* n. sp.  
 S. Africa. **Distant**, W. L. Cape Town,  
 Ann. S. Afric. Mus., **3**, 1903, (58).

*Triatoma migrans* n. sp. **Breddin**, G.  
 Berlin, SitzBer. Ges. natf. Freunde,  
**1903**, (111).

*Tribelocephala oculata* n. sp. West  
 Africa. **Distant**, W. L. Ann. Mag.  
 Nat. Hist., London, (Ser. 7), **12**, 1903,  
 (472-474).

———— *ornata* n. sp. China.  
**Distant**, W. L. l.c. (475-476).

———— *spurea* n. sp. Fernando  
 Po. **Breddin**, G. Soc. Entomol.,  
 Zürich, **17**, 1903, (178).

———— *tristis* n. sp. Africa.  
**Breddin**, G. l.c. **18**, (115).

*Vachiria* nn. spp. l'Asie centrale.  
**Jakovlev**, V. E. St. Peterburg, Hor.  
 Soc. Ent. Ross., **36**, 1903, (129-203).

*Velinus* nn. spp. **Distant**, W. L.  
 Ann. Mag. Nat. Hist., London, (Ser. 7),  
**11**, 1903, (357-358).

———— *foersteri* n. sp. Sumatra.  
**Breddin**, G. Soc. Entomol., Zürich, **17**,  
 1903, (177-178).

———— *parvus* n. sp. Borneo,  
 Sarawak. **Distant**, W. L. Ann. Mag.  
 Nat. Hist., London, (Ser. 7), **11**, 1903,  
 (211).

*Velitra mazima* n. sp. **Breddin**, G.  
 Berlin, SitzBer. Ges. natf. Freunde,  
**1903**, (114).

*Vilius monocerus* n. sp. Java. **Breddin**, G. Zool. Anz., Leipzig, **26**, 1903, (508).

*Vitumnus scenicus* Stål. nn. varr. **Distant**, W. L. Cape Town, Ann. S. Afric. Mus., **3**, 1903, (48, 49, 54, 61).

*Yolinus* nn. spp. **Distant**, W. L. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (212-213).

### CIMICIDAE.

*Acanthia (Cimex) lectularia*, Art der Nahrungsaufnahme. **Voronkov**, N. V. Moskva, Trd. kruž. Izsl. Russ. prir., **1**, 1903, (87-100, mit 4 Fig.).

### ANTHOCORIDAE.

*Triphleps oblongus* n. sp. **Reuter**, O. Helsingfors, Öfvers. F. Vet. Soc., **44**, 1901-1902, (154).

### CAPSIDAE.

#### GENERAL.

**Hübner**, T. Anhang (Inhaltsverzeichnis, Register, Berichtigung, Nachtrag) zum 1. Bd der Synopsis der deutschen Blindwanzen (Hemiptera heteroptera. Fam. *Capsidae*). Stuttgart, Jahreshefte Ver. Natk., **59**, 1903, (187-226, mit 1 Taf.).

**Reuter**, O. M. *Capsidae* Chinenses et Thibetanae hactenus cognitae enumeratae novaeque species descriptae. Helsingfors, Öfvers. F. Vet. Soc., **45**, [No. 16], 1902-1903, (1-23).

——— *Capsidae* ex Abessinia et regionibus confinibus enumeratae novaeque species descriptae. l.c. **45**, (1-18, cum tab.).

#### SPECIAL.

*Adelphocoris* nn. spp. **Reuter**, O. M. Helsingfors, Öfvers. F. Vet. Soc., **45**, [No. 16], 1902-1903, (1-23).

*Aelocoris* n. gen., *A. alboconspersus* n. sp. Abyssinia. **Reuter**, O. M. l.c. [No. 6], (1-18).

*Alloeotomus chinensis* n. sp. **Reuter**, O. M. l.c. (1-23).

*Automoscelis* Reut. nova descriptio, *A. noualhieri* n. sp. **Reuter**, O. M. l.c. **44**, 1901-1902, (51-70).

*Calocoris* nn. varr. Mediterranean. **Reuter**, O. M. l.c. (51-70).

*Camptobrochia tibialis* n. sp. Abyssinia. **Reuter**, O. M. l.c. [No. 6], 1903, (1-18).

*Camptozygum pumilio* n. sp. **Reuter**, O. l.c. **44**, 1901-1902, (166-168).

*Campylognathus nigrigenis* n. sp. **Reuter**, O. l.c. (186-187).

*Carpocoris lynx* F. var., *longiceps* R. n. var. **Reuter**, O. M. l.c. (140-188).

*Ceratofulvius* n. gen. **Reuter**, O. M. l.c. (140-188).

*Charagochilus duplicatus* n. sp. **Reuter**, O. M. **45**, [No. 16], 1902-1903, (1-23).

*Compsenannus* n. gen., *C. puncticornis* n. sp. **Reuter**, O. M. l.c. **44**, 1901-1902, (51-70).

*Cyphodemidea* n. gen., *C. variegata* n. sp. **Reuter**, O. M. l.c. **45**, [No. 16], 1902-1903, (1-23).

*Cyrtopeltis tenuis* n. sp. **Reuter**, O. M. l.c. (1-23).

*Deraeocoris cordiger* Hahn var., *fallaciosus* n. var. Spain. **Reuter**, O. M. Ent. Mag., London, **39**, 1903, (119).

——— *schach* nn. varr. **Reuter**, O. M. Helsingfors, Öfvers. F. Vet. Soc., **44**, 1901-1902, (140-188).

*Dichroscytus handlirschi* n. sp. **Reuter**, O. l.c. (165-166).

*Dicyptus geniculatus*, Fieb., var. *disrupta* n. var. Spain. **Reuter**, O. M. Ent. Mag., London, **39**, 1903, (121).

*Dimorphocoris lividipennis* n. sp. Spain. **Reuter**, O. M. l.c. (119).

——— *schmidtii* Fieb. **Reuter**, O. M. Helsingfors, Öfvers. F. Vet. Soc., **44**, 1901-1902, (140-188).

*Eccritotarsus orchidearum* n. sp. **Reuter**, O. l.c. (157).

*Eurycyrtus parvulus* n. sp. Abyssinia. **Reuter**, O. M. l.c. **45**, [No. 6], 1903, (1-18).

*Fulvius breddini* n. sp. **Reuter**, O. l.c. **44**, 1901-1902, (156).

*Glaphyrocoris* n. gen., *G. unifasciatus* n. sp. Abyssinia. **Reuter**, O. M. l.c. **45**, [No. 6], 1903, (1-18).

*Globiceps juniperi* n. sp., *G. fulvicollis* Jak. Reuter, O. M. L. c. **44**, 1901-1902, (176).

*Glossopeltis* n. gen., *G. coutieri* n. sp. Abyssinia. Reuter, O. M. L. c. **45**, [No. 6], 1903, (1-18).

*Grypocoris costae* n. sp. Reuter, O. L. c. **44**, 1901-1902, (164).

*Guianerius* n. gen., *G. typicus* n. sp. Malay. Distant, W. L. Fascic. Malay. Zool., II, **1**, (269).

*Halticus luteicollis* Panz. var. *vitticeps* Reut. n. var. Mediterranean. Reuter, O. M. Helsingfors, Ofvers. F. Vet. Soc., **44**, 1901-1902, (51-70).

*Helopeltis*, Plage der Cacaocultur. Zehner, L. Salatiga, Bull. Cacao, **7**, 1903, (1-22).

———— *cuneata* n. sp. Malay. Distant, W. L. Fascic. Malay. Zool., II, **1**, (270).

*Hypsitylus punctipes* Reut. Mediterranean. Reuter, O. M. Helsingfors, Ofvers. F. Vet. Soc., **44**, 1901-1902, (51-70).

*Laurinia* n. gen., *L. fugax* n. sp. Reuter, O. M. and Ferr. L. c. (149-188).

*Liocoridia* n. gen., *L. mutabilis* n. sp. Reuter, O. M. L. c. **45**, [No. 16], 1902-1903, (1-23).

*Lygus* nn. spp. Distant, W. L. Fascic. Malay. Zool., II, **1**, (269).

———— nn. spp. Abyssinia. Reuter, O. M. L. c. **45**, [No. 6], 1903, (1-18).

*Macrotylus* n. sp.? Wood's Holl, Mass. Montgomery, T. H., jun. Philadelphia, Pa., Ent. News Acad. Nat. Sci., Amer. Ent. Soc., **13**, 1902, (12-13).

*Megacoelum persimile* n. sp. Abyssinia. Reuter, O. M. Helsingfors, Ofvers. F. Vet. Soc., **45**, [No. 6], 1903, (1-18).

*Myrmecoris gracilis* Sahlb., an addition to the British Hemiptera. Saunders, E. Ent. Mag., London, **39**, 1903, (269-271).

*Orthotylus lethierryi* Reut., *O. curtispennis* n. sp. Mediterranean. Reuter, O. M. Helsingfors, Ofvers. F. Vet. Soc., **44**, 1901-1902, (51-70).

*Pantilius gonoceroideus* n. sp. Reuter, O. M. L. c. **45**, [No. 16], 1902-1903, (1-23).

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*Parapantilius* n. gen., *P. thibetanus* n. sp. Reuter, O. M. L. c. (1-23).

*Phyllidea* n. gen., *P. henschi* n. sp. Reuter, O. L. c. **44**, 1901-1902, (180-183).

*Phytocris lesnei* n. sp. Mediterranean. Reuter, O. M. L. c. (51-70).

*Pilophorus scutellaris* n. sp. Mediterranean. Reuter, O. M. L. c. (51-70).

*Platycranus metriorrhynchus* n. sp. Reuter, O. L. c. (179-180).

*Psallus scutellaris* n. sp. Mediterranean. Reuter, O. M. L. c. (51-70).

*Rhinofulcius* n. gen. Reuter, O. M. L. c. (140-188).

*Rhopaliceschatus* n. gen., *R. quadrimaculatus* n. sp. Reuter, O. M. L. c. **45**, [No. 16], 1902-1903, (1-23).

*Systellonotus championi* n. sp. Spain. Reuter, O. M. Ent. Mag., London, **39**, 1903, (120-121).

———— *putoni* Reut. Mediterranean. Reuter, O. M. Helsingfors, Ofvers. F. Vet. Soc., **44**, 1901-1902, (51-70).

*Tiniccephalus pulcher* n. sp. Mediterranean. Reuter, O. M. L. c. (51-70).

*Tuponia* n. sp.? Wood's Holl, Mass. Montgomery, T. H., jun. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (12-13).

———— *lethierryi* Reut. 3 nn. spp. 1 n. var. Mediterranean. Reuter, O. M. Helsingfors, Ofvers. F. Vet. Soc., **44**, 1901-1902, (51-70).

———— *tincta* n. sp. Transcaspia. Jakovlev, V. Rev. Russ. Ent., Jaroslavl, **3**, 1903, (191-195).

## SALIDIDAE.

*Acanthia* (Salda) *opacula* Zett. var. *albipennis* n. var. Reuter, O. M. Helsingfors, Ofvers. F. Vet. Soc., **44**, 1901-1902, (140-188).

## BELOSTOMIDAE.

*Belostoma* Latr. (= *Zailia* Arn. et Serv. et auct.), nn. spp. Montandon, A. L. Bul. Muséum, Paris, **1903**, (21-23).

———— *oxyurum* Duf., Beschreibung **4** nn. spp. Montandon, A. L. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., **1**, 1903, (358-363).



## NAUCORIDAE.

*Pelocoris femorata* Pal. B. habits.  
**Bueno**, J. R. de la Torre. New York.  
 N.Y., J. Ent. Soc., **11**, 1903, (166-173).

## HEMIPTERA. HOMOPTERA.

## GENERAL.

**Hansen**, H. J. The morphology and classification of the auchenorrhynchous Homoptera. Entomologist, London, **36**, 1903, (42-44, 64-67, 93-94).

## CICADIDAE.

## GENERAL.

**Froggatt**, W. W. Cicadas ("Locusts"), and their habits. Agric. Gaz., Sydney, N.S.W., **14**, 1903, (334-341, 418-425, with 2 pls.).

**Hübner**, T. Deutsche Sing-Cicaden. Stuttgart, Jahreshefte Ver. Natk., **59**, 1904, (LII-LIV).

**Uhler**, P. R. Enumeration of the Cicadidae of Brazil in the collection of Mr. Herbert H. Smith. Baltimore, Trans. Md. Acad. Sci., **2**, 1903, (1-17).

## SPECIAL.

*Acrilla nana* n. sp. Ost-Neuguinea. **Jacobi**, A. Berlin, SitzBer. Ges. natf. Freunde, **1903**, (13).

*Chlorita flavescens* Fab. **Giard**, A. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (33).

*Cicada* nn. spp. **Uhler**, P. R. Baltimore, Trans. Md. Acad. Sci., **2**, 1903, (1-17).

——— *septendecim*, oviposition. **Alwood**, W. B. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., No. **40**, 1903, (75-77).

——— history. **Mariatt**, C. L. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (126-129).

——— in the district of Columbia. **Mariatt**, C. L. l.c. (124-126).

——— orchard pest. **Sanderson**, E. D. Agric. Exp. Sta., Delaware, Newark, Bull., No. **53**, 1901,

(19, with 11 figs.). 23 cm.; review, Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., **13**, 1902, (872-873).

*Cicadetta montana* Scop. Normandie. **Lancelevée**, Th. Elbeuf, Bul. soc. étud. sci. nat., **21**, 1902, (43-45).

*Drepanopsaltria russula* n. sp. Ost-Neuguinea. **Jacobi**, A. Berlin, SitzBer. Ges. natf. Freunde, **1903**, (10).

*Fidicina explanata* n. sp. **Uhler**, P. R. Baltimore, Trans. Md. Acad. Sci., **2**, 1903, (1-17).

*Gaena electa* n. sp. Tonking. **Jacobi**, A. Berlin, SitzBer. Ges. natf. Freunde, **1902**, (20-25).

*Gymnotympana nenians* n. sp. Ost-Neuguinea. **Jacobi**, A. l.c. **1903**, (14).

*Heteropsaltria* n. gen., *H. aliena* n. sp. **Jacobi**, A. l.c. **1902**, (73-76).

*Mogannia caesar* n. sp. Tonking. **Jacobi**, A. l.c. **1902**, (20-25).

*Odopoea biolleyi* n. sp. Costa Rica. **Distant**, W. L. London, Trans. Ent. Soc., **1903**, (526-527).

*Parnisa* nn. spp. **Uhler**, P. R. Baltimore, Trans. Md. Acad. Sci., **2**, 1903, (1-17).

*Psallodia* n. gen., *P. espinii* n. sp. Hayti. **Uhler**, P. R. l.c. (18).

*Talainga distantii* n. sp. Tonking. **Jacobi**, A. Berlin, SitzBer. Ges. Natf. Freunde, **1902**, (20-25).

*Terpsmosia posidonia* n. sp. Tonking. **Jacobi**, A. l.c. (20-25).

*Tibicen reductus* n. sp. Tonking. **Jacobi**, A. l.c. (20-25).

## FULGORIDAE.

## GENERAL.

**Melichar**, L. Monographie der Acanaloniiden und Flatiden. (Homoptera). Wien, Ann. Nat. Hist. Hofmus., **16**, 1901, (178-258); **17**, 1902, (1-253, 9 Taf.).

**Swasey**, O. H. Observations on hymenopterous parasites of certain Fulgoridae. Columbus, Ohio, Univ. Bull., (Ser. 7), No. **23**, 1903, (Cont. Dept. Zool. Ent.); reprint from Ohio Nat., Columbus, Ohio, **3**, 1903, (444-451, with pl.). Separate. 23 cm.

## SPECIAL.

*Acanalonia* nn. spp. Centr. America and W. Indies. **Melichar**, L. Wien, Ann. NatHist. Hofmus., **16**, 1901, (187, 190).

*Acrophaea* n. gen., *A. fasciata* n. sp. New Guinea. **Melichar**, L. l.c. **17**, 1902, (8).

*Adezia* n. gen., *A. fowleri*, *A. melano-neura* nn. spp. S. America. **Melichar**, L. l.c. **16**, 1901, (229-231).

*Aflata* n. gen., *A. stali* n. sp. Adelaide. **Melichar**, L. l.c. **17**, 1902, (7-8).

*Anidora* n. gen., *A. fusca* n. sp. New Pomerania. **Melichar**, L. l.c. (158-159).

*Atracis* nn. spp. **Melichar**, L. l.c. (181-197).

*Atracodes* n. gen., *A. corrugatus*, *Madagascar*, *A. indutus*, St. Thomas, nn. spp. **Melichar**, L. l.c. (225).

*Batusa* n. gen., *B. agilis*, Porto Rico, *B. conata* nn. spp. S. America. **Melichar**, L. l.c. **16**, 1901, (191-193).

*Bythopsyra* n. gen., *B. illocata*, Sumatra, *B. infiza*, Borneo, *B. sumatra* nn. spp. **Melichar**, L. l.c. (224-227).

*Camerunia* n. gen., *C. integra* n. sp. W. Africa. **Melichar**, L. l.c. **17**, 1902, (63).

*Carthaea* nn. spp. S. America. **Melichar**, L. l.c. (31-32).

*Carthaeomorpha* n. gen., *C. breviceps*, *C. rufipes* nn. spp. S. America. **Melichar**, L. l.c. (33-34).

*Cathedra* n. gen. **Kirkaldy**, G. W. Entomologist, London, **36**, 1903, (179).

*Cerynia* nn. spp. Sumatra, Celebes and China. **Melichar**, L. Wien, Ann. NatHist. Hofmus., **16**, 1901, (219, 221).

*Cixius pilifer* n. sp. **Melichar**, L. Homopteren-Fauna von Ceylon. Berlin (F. L. Dames), 1903, (30).

*Colgar* nn. spp. E. Indies. **Melichar**, L. Wien, Ann. NatHist. Hofmus., **17**, 1902, (111-116).

*Cromna* nn. spp. **Melichar**, L. l.c. (59-60).

*Cryptoflata* n. gen., *C. demota*, *C. nigrolimbata*, *C. parvula*, Africa, *C. flavoguttata*, Ceylon, nn. spp. **Melichar**, L. l.c. (19-22).

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*Cyarda angustata* n. sp. Madagascar. **Melichar**, L. l.c. (135).

*Dascalia* nn. spp. S. America. **Melichar**, L. l.c. (146-154).

*Dascalina* n. gen., *D. aegrola*, *D. alternans*, *D. contorta*, *D. reversa* nn. spp. Australia. **Melichar**, L. l.c. (154-156).

*Dendrophora* (~ *Dictyophara*) n. gen., *D. ramosa* n. sp. **Melichar**, L. Homopteren-Fauna von Ceylon, Berlin, 1903, (21-23, pl. I, fig. 5).

*Derisa* n. gen., *D. atratula* n. sp. Persia. **Melichar**, L. Wien, Ann. NatHist. Hofmus., **17**, 1902, (157).

*Dermoflata* n. gen., *D. rotundata* n. sp. Sumatra. **Melichar**, L. l.c. **16**, 1901, (245-246).

*Dictyophara* nn. spp. **Melichar**, L. Homopteren-Fauna von Ceylon, Berlin, 1903, (23-25).

*Dictyopharina* n. gen., *D. viridissima* n. sp. **Melichar**, L. l.c. (25-26).

*Doria* n. gen. **Melichar**, L. Wien, Ann. NatHist. Hofmus., **16**, 1901, (231).

*Egropa* (~ *Tettigometra*) n. gen., *E. inusta* n. sp. **Melichar**, L. Homopteren-Fauna von Ceylon, Berlin, 1903, (82, pl. III, fig. 13).

*Epirama* n. gen., *E. conspergata* n. sp. **Melichar**, L. l.c. (45).

*Eudelphax* n. gen., *E. setulosus* n. sp. **Melichar**, L. l.c. (32, pl. I, fig. 6).

*Euphanta* n. gen., *E. acuminata*, *E. ruficeps* nn. spp. **Melichar**, L. Wien, Ann. NatHist. Hofmus., **17**, 1902, (38-39).

*Eurima* n. gen., *E. astuta* n. sp. Persia. **Melichar**, L. l.c. (157).

*Euryasmauliceps* n. sp. **Horváth**, G. Budapest, Ann. Hist. Nat. Mus. Nat. Hung., **1**, 1903, (475-476).

*Exoma* n. gen., *E. viduata* n. sp. Haiti. **Melichar**, L. Wien, Ann. NatHist. Hofmus., **17**, 1902, (158).

*Farona* n. gen., *F. fuscipennis* n. sp. Burma. **Melichar**, L. l.c. (142).

*Flata* nn. spp. Africa, Cochin China, Borneo and Philippines. **Melichar**, L. l.c. **16**, 1901, (206-211).

*Flatida* nn. spp. W. Africa. **Melichar**, L. l.c. (247-248).

*Flatina* n. gen., *F. binotata*, *F. chloris*, *P. circellaris*, *F. flavescens*, *F. intinata*, *F. liciata*, *F. ochreatea* nn. spp. W. Africa. **Melichar**, L. l.c. (214-217).

*Flatoides* nn. spp. **Melichar**, L. l.c. (200-222).

*Flatomorpha* n. gen., *F. inclusa* n. sp. Sarawak. **Melichar**, L. l.c. (28).

*Flatopsis* n. gen., *F. guttifera* n. sp. Madagascar. **Melichar**, L. l.c. (51).

*Flatoptera* n. gen., *F. depressa* n. sp. Borneo. **Melichar**, L. l.c. 16, 1901, (240-249).

*Flatosoma* n. gen., *F. signoreti* n. sp. Java. **Melichar**, L. l.c. (244).

*Flatula* n. gen., *F. cribrata* n. sp. Palembang. **Melichar**, L. l.c. 17, 1902, (63).

*Gordia* n. gen., *G. oculata* n. sp. **Melichar**, L. Homopteren-Fauna von Ceylon, Berlin, 1903, (43).

*Gyarina* n. gen. for *Flata nigratarsis*. Karsch. **Melichar**, L. Wien, Ann. NatHist. Hofmus., 16, 1901, (253).

*Gyaria cuspidata* n. sp. Togo. **Melichar**, L. l.c. (253).

*Hansenia* n. gen., *H. kirbyi* n. sp. Ceylon, and *Poecloptera pulverulenta* Gulr. **Melichar**, L. l.c. (228-229).

*Hemisphaerius secundus* n. sp. **Melichar**, L. Homopteren-Fauna von Ceylon, Berlin, 1903, (75).

*Hemisphaeroides* (~ *Hemisphaerius*) n. gen., *H. aeneoniger*, *H. lineatus* nn. spp. **Melichar**, L. l.c. (75-76).

*Hyateropterum* nn. spp. **Melichar**, L. l.c. (77-78, pl. III, fig. 8).

*Idume plicata* n. sp. Sarawak. **Melichar**, L. Wien, Ann. NatHist. Hofmus., 17, 1902, (28).

*Interamma rubrofasciata* n. sp. **Melichar**, L. Homopteren-Fauna von Ceylon, Berlin, 1903, (61, pl. II, fig. 8).

*Ityraea* nn. spp. Africa and Madagascar. **Melichar**, L. Wien, Ann. NatHist. Hofmus., 16, 1901, (201-203).

*Kermesia* n. gen., *K. albida* n. sp. **Melichar**, L. Homopteren-Fauna von Ceylon, Berlin, 1903, (53-54, pl. I, fig. 14).

*Kirbya* n. gen., *K. pagana* n. sp. **Melichar**, L. l.c. (37-38, pl. II, fig. 1).

*Lasonia* n. gen., *L. kirkaldyi* n. sp. **Melichar**, L. l.c. (87-88, pl. II, fig. 9).

*Latois* nn. spp. Madagascar. **Melichar**, L. Wien, Ann. NatHist. Hofmus., 16, 1901, (257-258).

*Lechaea* nn. spp. Celebes. **Melichar**, L. l.c. (233-234).

*Liburnia* nn. spp. **Melichar**, L. Homopteren-Fauna von Ceylon, Berlin, 1903, (97-103, pl. II, fig. 6).

*Lichena* n. gen. for *Flatoides dealbatus* Dist. **Melichar**, L. Wien, Ann. NatHist. Hofmus., 17, 1902, (167).

*Mesophantia* n. gen., *M. pallens* n. sp. Persia. **Melichar**, L. l.c. (18).

*Mesophylla* n. gen., *M. correcta*, W. Africa. **Melichar**, L. Philippines, nn. spp. **Melichar**, L. l.c. (53).

*Microflata* n. gen., *M. stictica* n. sp. Australia. **Melichar**, L. l.c. (9).

*Myndus fulvus* n. sp. Ohio. **Osborn**, H. Ohio Nat., Columbus, Ohio, 4, 1903, (44-46).

———— *radicis* n. sp. **Osborn**, H. l.c. (42-44).

*Neocerus* n. gen., *N. corniculatus* n. sp. S. America. **Melichar**, L. Wien, Ann. NatHist. Hofmus., 17, 1902, (132).

*Nepheea* nn. spp. E. Indies. **Melichar**, L. l.c. (103-105).

*Nisia* (~ *Kermesia*) n. gen. **Melichar**, L. Homopteren - Fauna von Ceylon, Berlin, 1903, (53).

*Oliarus tabrobanensis* n. sp. **Melichar**, L. l.c. (31).

*Orchesma* n. gen., *O. marginepunctata*, *O. serendiba* nn. spp. **Melichar**, L. l.c. (94-95, pl. II, fig. 9, pl. III, fig. 3).

*Ormenis* nn. spp. **Melichar**, L. Wien, Ann. NatHist. Hofmus., 17, 1902, (72-95).

———— *fatua* n. sp. **Melichar**, L. Homopteren-Fauna von Ceylon, Berlin, 1903, (90).

*Oryza* n. gen. for *Fulgora truncata*, *O. extendens* Sumatra, n. sp. **Melichar**, L. l.c. (50-51).

*Paraeromna* n. gen. for *Fulgora punctata* and *F. rotundior* Fowl. **Melichar**, L. l.c. (57).

*Parafata* n. gen. for *Phromnia seminigra* Stål. **Melichar**, L. l.c. 16, 1901, (217).

*Paranda* n. gen., *P. globiceps* n. sp. **Melichar**, L. Homopteren-Fauna von Ceylon, Berlin, 1903, (92-93, pl. II, fig. 10).

*Paranotus* nn. spp. Africa. **Melichar**, L. Wien, Ann. Nat.Hist. Hofmus., 17, 1902, (24-25).

*Paratangia* n. gen., *P. notata*, *P. marginata*, *P. fimbriolata* nn. spp. **Melichar**, L. Homopteren-Fauna von Ceylon, Berlin, 1903, (46-47).

*Paratella* n. gen., *P. discoidalis*, *P. crudita*, *P. fumaria*, *P. fusconigra*, *P. miniata*, *P. modesta*, *P. roseoalba*, *P. subflava* nn. spp. **Melichar**, L. Wien, Ann. Nat. Hist. Hofmus., 17, 1902, (117-122).

*Parathiscia* n. gen., *P. conjugata* n. sp. Africa. **Melichar**, L. l.c. 16, 1901, (194).

*Paruzelia* n. gen., *P. psyllomorpha* n. sp. **Melichar**, L. Homopteren-Fauna von Ceylon, Berlin, 1903, (51, pl. III, fig. 2).

*Perkinsiella* n. gen., *P. saccharicida* n. sp. Hawaiian Isles. **Kirkaldy**, G. W. Entomologist, London, 36, 1903, (179-180).

*Phantia*, monographie du genre. **Russock**, M. de. Schaffhausen, Mitt. Schweiz. Entomol. Ges., 10, 1902, (420-424).

— *cylindricornis* n. sp. Afghanistan. **Melichar**, L. Wien, Ann. Nat.Hist. Hofmus., 17, 1902, (15).

*Phleboterum* nn. spp. Madagascar and Celebes. **Melichar**, L. l.c. (2-4).

*Phyllodinus* nn. spp. Ohio. **Osborn**, H. Ohio Nat., Columbus, Ohio, 4, 1903, (44-46).

*Phyma* n. gen., *P. arguta*, Columbia, *P. divisa*, Borneo, *P. exsoleta*, Africa, *P. imitata*, Tonkin, *P. optata* var. *partita* n. var., Sumatra. **Melichar**, L. Wien, Ann. Nat.Hist. Hofmus., 17, 1902, (43-44).

*Pleroma* (~*Temesa*) n. gen., *P. ceylonica*, *P. fumata* nn. spp. **Melichar**, L. Homopteren-Fauna von Ceylon, Berlin, 1903, (41-42, pl. I, fig. 12).

*Poeciloflata* n. gen., *P. uniformis* n. sp. Borneo. **Melichar**, L. Wien, Ann. Nat.Hist. Hofmus., 16, 1901, (235-236).

*Poekilloptera* nn. spp. S. America. **Melichar**, L. l.c. (238-240).

*Porophloeus* n. gen., *P. fuscus*, *P. longiceps*, *P. gibbulus*, *P. marcidus*, *P. ignavus* nn. spp. Madagascar. **Melichar**, L. l.c. 17, 1902, (169-173).

*Pteryjoma* (~*Pterilia*) n. gen., *P. nasuta* n. sp. **Melichar**, L. Homopteren-Fauna von Ceylon, Berlin, 1903, (81, pl. III, fig. 7).

*Putala* (~*Dictyophara*) n. gen., *P. rostrata* n. sp. **Melichar**, L. l.c. (26, pl. I, fig. 8).

*Radha* (~*Hysteropterum*) n. gen., *R. acuminata* n. sp. **Melichar**, L. l.c. (76, pl. III, fig. 6).

*Rhinophantia* n. gen. for *Phantia longiceps* Put. **Melichar**, L. Wien, Ann. Nat. Hist. Hofmus., 17, 1902, (17).

*Rhotana* nn. spp. **Melichar**, L. Homopteren-Fauna von Ceylon, Berlin, 1903, (62).

*Ricania distincta* n. sp. **Melichar**, L. l.c. (84, pl. II, fig. 7).

*Sanurus* n. gen., *S. dubius*, *S. venosus* nn. spp. Sumbawa. **Melichar**, L. Wien, Ann. Nat. Hist. Hofmus., 17, 1902, (29-30).

*Sardia* n. gen., *S. rostrata* n. sp. **Melichar**, L. Homopteren-Fauna von Ceylon, Berlin, 1903, (96, pl. II, fig. 4).

*Sarima* (~*Hysteropt*) n. gen., *S. illibata*, *S. elongata* nn. spp. **Melichar**, L. l.c. (78-80).

*Sassula similata* n. sp. **Melichar**, L. l.c. (86).

*Searpantina* n. gen., *S. stigmatia* n. sp. Borneo. **Melichar**, L. Wien, Ann. Nat. Hist. Hofmus., 16, 1901, (243).

*Seliza* nn. spp. Java, Socotra and India. **Melichar**, L. l.c. 17, 1902, (137-140).

*Sephena* n. gen., *S. conspersa*, Solomon Is., *S. cyanea*, New Pomerania, *S. despecta*, *S. guttifera*, Rom, *S. interstincta*, *S. lurida*, Celebes, *S. pulchra*, *S. punctula*, N. Guinea, *S. rubrovenosa*, Gazelle Helicus, *S. rufomarginata*, *S. scutellata*, N. Guinea nn. spp. **Melichar**, L. l.c. (1-253, 9 Taf.).

*Siphanta minuta* n. sp. **Melichar**, L. l.c. (38).

*Stiborus* (~ *Ossa*) n. gen.; *S. viridis* n. sp. **Melichar**, L. Homopteren-Fauna von Ceylon, Berlin, 1903, (50).

*Tangina* n. gen., *T. bipunctata* n. sp. **Melichar**, L. l.c. (44, pl. II, fig. 19).

*Temesa* n. gen., *T. tenella*, *T. punctula* nn. spp. **Melichar**, L. l.c. (40-41, pl. III, fig. 11).

*Tettigometra lyncea* n. sp. **Horváth**, G. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (26-27).

*Thracia egregia* n. sp. **Melichar**, L. Homopteren-Fauna von Ceylon, Berlin, 1903, (58, pl. II, fig. 18).

*Udugama* n. gen., *U. exoleta* n. sp. **Melichar**, L. l.c. (27-28, pl. I, fig. 7).

*Urana* n. gen., *U. paradoxa* n. sp., Madagascar. **Melichar**, L. Wien, Ann. NatHist. Hofmus., 17, 1902, (167).

*Uzantis* nn. spp., E. Indies. **Melichar**, L. l.c. (161-165).

*Walkeria* n. gen. for *Flata radiata* and *F. crassivenosa*. **Melichar**, L. l.c. 16, 1901, (250).

*Zarudnya* n. gen., *Z. fusca*, *Z. interstitialis* nn. spp. Persia. **Melichar**, L. l.c. 17, 1902, (131-132).

## MEMBRACIDAE.

### GENERAL.

**Bredin**, G. Einige Homopteren aus der Verwandtschaft von *Hypsauchenia* Germ. Soc. Entomol., Zürich, 17, 1902, (90-92).

**Goding**, F. W. A monograph of the Australian *Membracidae*. Sydney, N.S.W., Proc. Linn. Soc. N.S. Wales, 28, 1903, (2-41, with 1 pl.).

### SPECIAL.

*Acanthucus kershawi* n. sp., Australia. **Goding**, F. W. Sydney, N.S.W., Proc. Linn. Soc. N.S. Wales, 28, 1903, (17).

*Adippe* nn. spp. **Buckton**, G. B. Monograph of the *Membracidae*. II, Pt. 5, 1903, (186-188).

*Anchon* nn. spp. **Buckton**, G. B. l.c. (215-216).

*Antianthe compressa* n. sp. **Buckton**, G. l.c. (191).

*Campylocentrus falco* n. sp. **Buckton**, G. B. Pt. 6, (243).

*Centrotus* nn. spp. **Buckton**, G. B. l.c. (246-247).

——— **Melichar**, L. Homopteren-Fauna von Ceylon, Berlin, 1903, (111-112).

*Centrotypus* nn. spp. Australia. **Goding**, F. W. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, 28, 1903, (27, 28).

——— *securis* n. sp. **Buckton**, G. B. Monograph of the *Membracidae*, II, Pt. 6, 1903, (238).

*Centruchus ferrugineus* n. sp. **Melichar**, L. Homopteren-Fauna von Ceylon, Berlin, 1903, (114).

*Ceraon* n. gen. **Buckton**, G. B. Monograph of the *Membracidae*, II, Pt. 6, 1903, (228).

*Daimon* n. gen., *D. satyrus* n. sp. **Buckton**, G. B. l.c. (240).

*Daurus gracilis* n. sp. Australia. **Goding**, F. W. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, 28, 1903, (33).

——— *nodosus* n. sp. **Buckton**, G. B. Monograph of the *Membracidae*. II, Pt. 6, 1903, (226).

*Dinghana* n. gen., *D. borealis* n. sp. Australia. **Goding**, F. W. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, 28, 1903, (8).

*Elaphiceps* n. gen., *E. cervus* n. sp. China. **Buckton**, G. B. Monograph of the *Membracidae*, II, Pt. 5, 1903, (217).

*Emphusis* n. gen., *E. tumescens* n. sp. **Buckton**, G. B. l.c. Pt. 6, (256).

*Entylia oedipus* n. sp. **Buckton**, G. B. l.c. Pt. 5, (183).

*Eufrenchia* n. gen., *E. leae* n. sp. Australia. **Goding**, F. W. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, 28, 1903, (25, 26, Pl. 1, fig. 5).

*Eufroggattia* n. gen., *E. tuberculata* n. sp. Australia. **Goding**, F. W. l.c. (37, 38).

*Eutryonia* n. gen. **Goding**, F. W. l.c. (34).

*Gargara* nn. spp. **Melichar**, L. Homopteren-Fauna von Ceylon, Berlin, 1903, (122-124).

*Gibbomorpha* n. gen., *G. aurea*, *G. parvula* nn. spp. **Buckton**, G. B. Monograph of the *Membracidae*, II, Pt. 5, 1903, (192-193).

- Heliria anoflava* n. sp. **Buckton**, G. B. l.c. (198).
- Hypsauchenia* nn. spp. **Buckton**, G. B. l.c. (211-212).
- Ibiceps* n. gen., *I. falcatus*, *I. ansatus* nn. spp. **Buckton**, G. B. l.c. Pt. 6, (238-240).
- Ichnocentrus inconspicuus* n. sp. **Buckton**, G. B. l.c. (255).
- Kleidon* n. gen., *K. comeris* n. sp. **Buckton**, G. B. l.c. Pt. 5, (213-214).
- Lamproptera stylata* n. sp. **Buckton**, G. B. l.c. (212).
- Leptocentrus*, old and new species. **Buckton**, G. B. l.c. Pt. 6, (234-236).
- Lubra* n. gen., *L. regalis* n. sp. Australia. **Goding**, F. W. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, 28, 1903, (30, pl. 1, figs. 4, 9).
- Lycoderes* nn. spp. **Buckton**, G. B. Monograph of the Membracidae, II, Pt. 5, 1903, (200-202).
- Machaerotypus* nn. spp. **Melichar**, L. Homopteren-Fauna von Ceylon, Berlin, 1903, (124-125).
- Maerops* n. gen., *M. mixtus* n. sp. Ceylon. **Buckton**, G. B. Monograph of the Membracidae, II, Pt. 6, 1903, (257).
- Maguva* n. gen., *M. horrida* n. sp. **Melichar**, L. Homopteren-Fauna von Ceylon, Berlin, 1903, (109, pl. II, fig. 21).
- Megaloschema laticornis* n. sp. **Buckton**, G. B. Monograph of the Membracidae, II, Pt. 6, 1903, (231).
- Metheira* nn. spp. **Buckton**, G. B. l.c. Pt. 5, (184-186).
- Oeda frondosa* n. sp. Brazil. **Buckton**, G. B. l.c. (206).
- Ophicentrus* nn. spp. **Buckton**, G. B. l.c. Pt. 6, 1903, (250).
- Otaris* n. gen., *O. auritus* n. sp. **Buckton**, G. B. l.c. (249).
- Otinotus* n. gen., *O. bellus*, *O. midas* nn. spp. **Buckton**, G. B. l.c. (232-233).
- Oxygonia accuminata* n. sp. **Buckton**, G. B. l.c. Pt. 5, (186).
- Ozyrachidia* (~ *Ozyrachis*) n. gen. **Melichar**, L. Homopteren-Fauna von Ceylon, Berlin, 1903, (118).
- Ozyrhachis* nn. spp. **Buckton**, G. B. Monograph of the Membracidae, II, Pt. 6, 1903, (224).
- *uncatus* n. sp. **Melichar**, L. Homopteren-Fauna von Ceylon, Berlin, 1903, (108).
- Pedalion* n. gen., *P. triste* W. Africa, *P. ornatum*, *P. punctipennis* nn. spp. **Buckton**, G. B. Monograph of the Membracidae, II, Pt. 6, (251-253).
- Phaerotus* n. gen., *P. stipulipennis* n. sp. Borneo. **Buckton**, G. B. l.c. (255).
- Pogon* n. gen., *P. incurvatum* n. sp. **Buckton**, G. B. l.c. (248).
- Polocentrus* n. gen., *P. latipes*, *P. rufus*, *P. neuter* nn. spp. **Buckton**, G. B. l.c. (253, 254).
- Porcorhinus* n. gen., *P. mastersi* n. sp. Australia. **Goding**, F. W. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, 28, 1903, (38, 39).
- Pterosticta* n. gen., *P. interposita* n. sp. **Buckton**, G. B. Monograph of the Membracidae, II, Pt. 6, (229-231).
- Pubilia grisea* n. sp. **Buckton**, G. B. l.c. Pt. 5, (184).
- Pyramba* n. gen., *P. aurifacies* n. sp. **Buckton**, G. B. l.c. Pt. 6, (248).
- Rabduchus* n. gen., *R. gnomon* n. sp. W. Africa. **Buckton**, G. B. l.c. (251).
- Sertorius* nn. spp. Australia. **Goding**, F. W. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, 28, 1903, (20-24).
- Sextius depressus* n. sp. Australia. **Goding**, F. W. l.c. (12).
- Sphaerocentrus luteus* n. sp. **Buckton**, G. B. Monograph of the Membracidae, II, Pt. 6, 1903, (244).
- Stictcephala nervosa* n. sp. **Buckton**, G. B. l.c. Pt. 5, (195).
- Tauriona* n. gen., *T. obesum* n. sp. Ecuador. **Buckton**, G. B. l.c. Pt. 6, (259).
- Telamona* nn. spp. United States. **Ball**, E. D. Washington, D.C., Proc. Biol. Soc., 16, 1903, (177-182).
- nn. spp. **Buckton**, G. B. Monograph of the Membracidae, II, Pt. 5, (197-198).

*Tricoceps* n. gen., *T. brunneipennis* n. sp. Natal. **Buckton**, G. B. Monograph of the Membracidae, II, Pt. 6, (249).

## CERCOPIDAE.

## GENERAL.

**Matsumura**, S. Monographie der Cercopiden Japans. Sapporo, the Journal of the Sapporo Agricultural College, **2**, 1903, (15-52).

## SPECIAL.

*Aphrophora deserta* n. sp. **Melichar**, L. Homopteren-Fauna von Ceylon, Berlin, 1903, (132).

*Caloscarta* n. gen., type *Calitettix capitata* Stål. **Breddin**, G. Soc. Entomol., Zürich, **18**, 1903, (99).

*Capnodistes* n. gen., *C. esox*, *C. carpio* nn. spp. Perak. **Breddin**, G. l.c. (91).

*Cosmocarta* nn. spp. **Breddin**, G. D. ent. Zs., Berlin, **1903**, (81-100).

— nn. spp. New Guinea. **Breddin**, G. Soc. Entomol., Zürich, **17**, 1903, (51).

— nn. spp. Tonking. **Jacobi**, A. Berlin, SitzBer. Ges. natf. Freunde, **1902**, (20-25).

*Eoscarta* n. gen., *E. eos*, *E. bicolor*, *E. linternoides* nn. spp. **Breddin**, G. Soc. Entomol., Zürich, **17**, 1902, (51-52, 58-59).

*Haematoscarta* n. gen. for *H. jacobyi* n. sp. Roon. **Breddin**, G. l.c. **18**, 1903, (99).

*Lepyronia pieta* n. sp. **Melichar**, L. Homopteren-Fauna von Ceylon, Berlin, 1903, (132).

*Locris* nn. spp. **Schouteden**, H. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (119).

*Machaeropsis* (~ *Machacrotia*) n. gen., *M. valida* n. sp. **Melichar**, L. Homopteren-Fauna von Ceylon, Berlin, 1903, (137-138, pl. IV, fig. 19).

*Mioscarta* n. gen. **Breddin**, G. Soc. Entomol., Zürich, **17**, 1902, (123).

*Notoscarta* n. gen., *N. croceonigra*, *N. pyeloides* nn. spp. New Guinea. **Breddin**, l.c. (51-52, 58-59).

*Phymathostetha* nn. spp. Tonking. **Jacobi**, A. Berlin, SitzBer. Ges. natf. Freunde, **1902**, (20-25).

*Ptyelus* nn. spp. **Melichar**, L. Homopteren-Fauna von Ceylon, Berlin, 1903, (133-135).

— nn. spp. **Schouteden**, H. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (120-121).

*Pyrgophyllum* n. gen., *P. wallacei*, *P. kinabalense*, *P. foersteri* nn. spp. Borneo. **Breddin**, G. Soc. Entomol., Zürich, **17**, 1902, (91).

*Tettigoscarta* n. gen., *T. nitidula*, *T. pulverosula*, *T. pulverosula* var., *luteicollis* n. var. Malacca. **Breddin**, G. l.c. (51-52).

*Tomaspis* nn. spp. E. Africa. **Schouteden**, H. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (118).

*Trichoscarta* n. gen., *T. ruhi* n. sp. Sumatra. **Breddin**, G. Soc. Entomol., Zürich, **17**, 1902, (51-52, 58-59).

## JASSIDAE.

*Aconura* nn. spp. **Melichar**, L. Homopteren-Fauna von Ceylon, Berlin, 1903, (187-188).

*Acropona* (~ *Siva*) n. gen. **Melichar**, L. l.c. (168).

*Agallia* nn. spp. **Melichar**, L. l.c. (150-152).

*Anoterostemma corcinum* n. sp. **Horváth**, G. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., **1**, 1903 (474-475).

*Athysanus pellaz* n. sp. **Horváth**, G. l.c. (473-474).

*Chiasmus uzeli* n. sp. **Melichar**, L. Homopteren-Fauna von Ceylon, Berlin, 1903, (164, pl. IV, fig. 7).

*Chlorotettix unicolor*. **Gillette**, C. P. Psyche, Cambridge, Mass., **9**, 1901, (171-173).

*Cicadula halophilu* n. sp. **Horváth**, G. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., **1**, 1903, (472-473).

— *vaga* n. sp. **Melichar**, L. Homopteren-Fauna von Ceylon, Berlin, 1903, (187).

*Conogonia* n. gen., *C. trucidula*, *C. placidula*, *C. hebetula* nn. spp. **Breddin**, G. Soc. Entomol., Zürich, **18**, 1903, (99).

*Deltocephalus* nn. spp. **Melichar**, L. Homopteren-Fauna von Ceylon, Berlin, 1903, (202-204, pl. VI, fig. 9).

— nn. spp. **Then**, Graz, Mitt. Natw. Ver. Steierm., 1901, 1902, (186-192).

— *chyzeri* Horv., Beschreibung. **Horváth**, G. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (23).

— *melsheimeri*. **Gillette**, C. P. Psyche, Cambridge, Mass., 9, 1901, (171-173).

*Doratulina* n. gen., *D. jocosa* n. sp. **Melichar**, L. Homopteren-Fauna von Ceylon, Berlin, 1903, (198-199, pl. VI, fig. 6).

*Doratula* Sahlb., Synoptische Tabelle, nn. spp. **Horváth**, G. l.c. (451-459, Taf. XVII).

— *heterophylla* n. sp. **Horváth**, G. l.c. (22-23).

*Empoasca* nn. spp. **Melichar**, L. Homopteren-Fauna von Ceylon, Berlin, 1903, (212-214).

*Entilia sinuata*, symbiosis with ants. **Howard**, L. O. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. 30, 1901, (75-78).

*Epiclines godmani* n. sp. Central America. **Fowler**, W. W. Biol. Centr.-Amer., London, 1903, II, (293).

*Erythria seculosa* n. sp. **Horváth**, G. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (19-20).

*Eupteryx* nn. spp. **Melichar**, L. Homopteren-Fauna von Ceylon, Berlin, 1903, (210-211).

*Eutettix* nn. spp. **Melichar**, L. l.c. (190-192, pl. VI, fig. 1).

*Gnathodus* nn. spp. **Melichar**, L. l.c. (208-209).

*Goniognathus* nn. spp. **Melichar**, L. l.c. (180-181).

*Gypona*, old and new species. Central America. **Fowler**, W. W. Biol. Centr.-Amer., London, 1903, II, (297-316).

*Hecalus nervosus* n. sp. **Melichar**, L. Homopteren-Fauna von Ceylon, Berlin, 1903, (173).

*Heliona* n. gen., *H. bioculata*, *H. constricta* nn. spp. **Melichar**, L. l.c. (215-216, pl. VI, figs. 5, 8).

*Idiocerus* nn. spp. **Melichar**, L. l.c. (146-150, pl. V, fig. 1).

— *balkanicus* n. sp. **Horváth**, G. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (24).

*Jassus* nn. spp. **Melichar**, L. Homopteren-Fauna von Ceylon, Berlin, 1903, (179).

— *alticola* n. sp. **Horváth**, G. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (474).

*Ledromorpha* nn. spp. **Melichar**, L. Homopteren-Fauna von Ceylon, Berlin, 1903, (140-141).

*Ledropsis* nn. spp. **Melichar**, L. l.c. (142-144, pl. IV, figs. 10, 13-17).

*Mesargus* n. gen., *M. asperatus* n. sp. **Melichar**, L. l.c. (175-176, pl. IV, fig. 12).

*Neodactus* n. gen., *N. acocephaloides* n. sp. **Melichar**, L. l.c. (162).

*Nirvana* nn. spp. **Melichar**, L. l.c. (166, pl. V, figs. 3-5).

*Oncometopia undata*: *garryae* n. subsp. North America. **Cockerell**, T. D. A. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (453-454).

*Pachyopsis ch'orophana* n. sp. **Melichar**, L. Homopteren-Fauna von Ceylon, Berlin, 1903, (153).

*Parallygus* n. gen., *P. divaricatus* n. sp. **Melichar**, L. l.c. (179, pl. V, fig. 7).

*Platyretus* n. gen., *P. marginatus* n. sp. **Melichar**, L. l.c. (174).

*Pythamus* n. gen., *P. dealbatus* n. sp. **Melichar**, L. l.c. (166, pl. V, fig.).

*Scaphoideus* nn. spp. **Melichar**, L. l.c. (196-198, pl. V, figs. 9, 10, 14).

*Selenocephalus* nn. spp. **Melichar**, L. l.c. (169-170, pl. IV, fig. 20).

*Signoretia gratiosa* n. sp. **Melichar**, L. l.c. (160, pl. IV, fig. 8).

*Tettigonia* nn. spp. Perak. **Breddin**, G. Soc. Entomol., Zürich, 18, 1903, (91-92).

— nn. spp. **Melichar**, L. Homopteren-Fauna von Ceylon, Berlin, 1903, (155-159).

*Thagria* (~ *Jassus*) n. gen., *T. fasciata* n. sp. **Melichar**, L. l.c. (176, pl. IV, fig. 9).



*Thamnotettix* n. sp. **Lambertie**.  
Bordeaux, Actes soc. linn., (sér. 6), 7,  
1902, (Procès-verb. LXXIX, 79).

— nn. spp. **Melichar**, L.  
l.c. (184-186).

— *fraudulentus* n. sp. **Horváth**, G. Budapest, Ann. Hist.-Nat.  
Mus. Nat. Hung., 1, 1903, (20-21).

*Typhlocyba* nn. spp. **Melichar**, L.  
Homopteren-Fauna von Ceylon, Berlin,  
1903, (216-218, pl. VI, figs. 3, 10).

*Uzelina* n. gen., *U. laticeps* n. sp.  
**Melichar**, L. l.c. (181-182, pl. V,  
fig. 2).

*Xestocephalus* nn. spp. **Melichar**, L.  
l.c. (207).

### PSYLLIDAE.

#### GENERAL.

**Froggatt**, W. W. Australia. *Psyllidae* Part III. Sydney, N.S.W., Proc.  
Linn. Soc. N. S. Wales, 28, 1903, (315-  
337, with 2 pls.).

#### SPECIAL.

*Aphalura* nn. spp. Australia. **Froggatt**, W. W. Sydney, N.S.W., Proc.  
Linn. Soc. N. S. Wales, 28, 1903, (318-  
320).

*Cardiaspis rubra* n. sp. Australia.  
**Froggatt**, W. W. l.c. (322).

*Geijerolyma* n. gen., *G. robusta* n. sp.  
Australia. **Froggatt**, W. W. l.c. (336).

*Psylla* nn. spp. Australia. **Froggatt**,  
W. W. l.c. (326-328).

*Rhinocola* nn. spp. Australia. **Froggatt**,  
W. W. l.c. (316-317).

*Spondylaspis* nn. spp. Australia.  
**Froggatt**, W. W. l.c. (323, 324).

*Thea wellingtoniae* n. sp. Australia.  
**Froggatt**, W. W. l.c. (325).

*Triozia* nn. spp. Australia. **Froggatt**,  
W. W. Sydney, N.S.W., Proc. Linn.  
Soc. N. S. Wales, 28, 1903, (329, 331,  
332, 334).

— *alexina* n. sp. New Zealand.  
**Marriner**, G. R. Wellington,  
Trans. N. Zeal. Inst., 35, 1903, (305-  
309).

### APHIDAE.

#### GENERAL.

Die wichtigsten Blattläuse der Obst-  
bäume. Schweiz. Landw. Zeitschr.,  
Aarau, 30, 1902, (1141-1143, mit  
9 Fig.).

**Brandicourt**, V. Pucerons et fourmis.  
Nature, Paris, 30, (2<sup>e</sup> semest.), 1902,  
(202).

**Cholodkovskij**, N. A. Zweites Ver-  
zeichnis der Aphidensammlung d. zool.  
Kabinetts . . . Forstinstituts. (Russ.)  
St. Petersburg, Izv. Lén. Inst., 8, 1902,  
(49-59, mit 1 Taf.).

— Aphidologische Mittheilun-  
gen. Zool. Anz., Leipzig, 26, 1903,  
(258-263, mit 1 Taf.).

**Cockerell**, T. D. A. *Aphididae* [from  
Beulah, Mexico.] Philadelphia, Pa.,  
Acad. Nat. Sci., Trans. Amer. Ent. Soc.,  
29, 1903, (114-116).

**Schouteden**, H. Les aphides racidi-  
coles de Belgique et les fourmis.  
Bruxelles, Ann. Soc. ent. Belgique, 46,  
1902, (136-142).

#### SPECIAL.

*Aphis* n. sp. Georgia. **Scott**, W. M.  
Washington, D.C., Bull. U. S. Dept.  
Agric. Div. Ent., (N. Ser.), No. 31, 1902,  
(56-59).

— nn. spp. New Mexico.  
**Cockerell**, T. D. A. Philadelphia, Pa.,  
Acad. Nat. Sci., Trans. Amer. Ent. Soc.,  
29, 1903, (114-116).

— *brevis* n. sp. Delaware.  
**Sanderson**, E. D. Agric. Exp. Sta.,  
Delaware, Newark, Rep., 1901, (127-199,  
with 6 pls., 16 figs.) [Review] Wash-  
ington, D.C., U. S. Dept. Agric. Off.  
Exp. Sta. Rec., 14, 1902, (268-269).

— *forbesi*, strawberry pests.  
**Smith**, J. B. Agric. Exp. Sta., New  
Jersey, New Brunswick, Bull. No. 149,  
1901, (17, with 2 pls.). 23 cm. [Review]  
Washington, D.C., U. S. Dept. Agric.  
Off. Exp. Sta. Rec., 13, 1901, (161).

— *ochrocentri* n. sp.  
**Cockerell**, T. D. A. Philadelphia, Pa.,  
Ent. News Acad. Nat. Sci., 14, 1903,  
(248).

— *tetrapteralis* n. sp.  
**Cockerell**, T. D. A. Los Angeles, Bull.  
So. Cal. Acad. Sci., 1, 1902, (40-41).

*Cerataphis lataniae*, a peculiar Aphid.  
Embleton, A. L. London, J. Linn. Soc.  
Zool., **29**, 1903, (90-97, pl. XII).

*Eusophra semifuneralis*, orchard  
pest. Sanderson, E. D. Agric. Exp.  
Sta., Delaware, Newark, Bull., No. **53**,  
1901, (19, with 11 figs.). 23 cm.  
[Review] Washington, D.C., U. S. Dept.  
Agric. Off. Exp. Sta. Rec., **13**, 1902,  
(172-873).

*Microsiphum* n. gen., *M. ptarmicae*  
n. sp. Crimea. Cholodkovskij, N. A.  
St. Petersburg, Izv. Lén. Inst., **8**, 1902,  
(49-59, mit 1 Taf.).

*Myzus phenax* n. sp. New Mexico.  
Cockerell, T. D. A. Philadelphia, Pa.,  
Acad. Nat. Sci., Trans. Amer. Ent. Soc.,  
**29**, 1903, (114-116).

———— *rosarum* Kalt. ♂.  
Schouteden, H. Zool. Anz., Leipzig,  
**28**, 1903, (685-688).

*Nectarosiphon rhinanthi* n. sp.  
Schouteden, H. Zool. Anz., Leipzig,  
**28**, 1903, (687).

*Pergandeida* n. gen., *P. ononides* n. sp.  
Schouteden, H. l.c. (686).

*Phylloxera* en Californie. Naturaliste,  
Paris, (sér. 2), **25**, 1903, (152).

———— en 1901. Journ. Agricult.  
Suisse, Genève, **25**, 1903, (121-122).

———— en 1902. l.c. (276-280).

———— Ist die Bekämpfung der  
Reblaus ein Irrtum? Schweiz.-Bauer,  
Bern, **57**, 1903, No. 65, (2).

———— Zum Kampf gegen die  
Reblaus. Müller-Thurgau, H. Frauenfeld  
Hüber et Cie, 1901, (II + 15). 8vo.

———— Bioletti, F. T. Agric.  
Exp. Sta., California, Berkeley, Bull.,  
No. **131**, 1901, (16, with fig.). 23 cm.  
[Review] Washington, D.C., U. S. Dept.  
Agric. Off. Exp. Sta. Rec., **13**, 1901,  
(372).

———— *piri*. Cholodkovsky, N.  
Zool. Anz., Leipzig, **27**, 1903, (118-119).

———— *vastatrix*, ein neues Organ.  
Stauffer, H. Allg. Zs. Ent., Neu-  
damm, **8**, 1903, (30-35, 57-60, mit 1  
Taf.).

*Schizoneura lanigera*, ihre Vertilgung.  
Schweiz. Landw. Zeitschr., Aarau, **30**,  
1902, (914-916).

*Schizoneura lanigera*, ethology.  
Froggatt, W. W. Sydney, N.S.W.  
Agric. Gaz., **14**, 1903, (18-25, with  
1 pl.).

———— sui modi di  
combatterle. Visart, O. Agricolt.  
Ticinese, Lugano, **35**, 1903, (103-108).

*Toxoptera graminum*, habits. Per-  
gande, T. Washington, D.C., Bull.  
U. S. Dept. Agric. Div. Ent., (N. Ser.),  
No. **38**, 1902, (7-19, with pl.).

## ALEUROIDIDAE.

### GENERAL.

Kellog, V. L. *Aleuroididae* . . .  
notes. California. Washington, D.C.,  
Bull. U. S. Dept. Agric. Div. Ent., No.  
**40**, 1903, (83-84).

Peal, H. W. The function of the  
nasiform orifice of the *Aleuroididae*. Cal-  
cutta, J. As. Soc. Beng., **72**, Pt. II, 1903,  
(67).

### SPECIAL.

*Aleuroides* nn. spp. Peal, H. W.  
Calcutta, J. As. Soc. Beng., **72**, Pt. II,  
1903, (61-95, with 5 pls.).

———— *citri*. Florida. Gossard,  
H. A. Washington, D.C., Bull. U. S.  
Dept. Agric. Div., Ent., (N. Ser.), No. **31**,  
1902, (68-74).

———— (*Trialeuroides*) *vitrinellus*.  
Cockerell, T. D. A. Philadelphia, Pa.,  
Ent. News Acad. Nat. Sci., **14**, 1903,  
(241).

## COCCIDAE.

### GENERAL.

Buffa, P. Coccidei parassiti della vite.  
Bollettino di Entomologia agraria,  
Padova, **9**, 1902, (3-11).

Clément, A. L. Un parasite des man-  
darines. Nature, Paris, (1<sup>er</sup> sem.), **31**,  
1903, (243-245, av. fig.).

Cockerell, T. [Additional records of  
Hemiptera from Beulah, New Mexico.]  
Philadelphia, Pa., Acad. Nat. Sci., Trans.  
Amer. Ent. Soc., **29**, 1903, (113).

**Distant, W. L.** Rhynchotal Miscellanea. Part I. Rhynchota from the Transvaal, Mashonaland and British Nyassaland. Cape Town, Ann. S. Afric. Mus., **3**, Pt. II, 1903, (43-62).

— Report on the Rhynchota from the Malay Peninsula. Part I, Heteroptera. Fascic. Malay. Zool., **II**, **1**, (219-272, pls. XV-XVI).

**Dominique, J.** Catalogue des Hémiptères (Hétéroptères, Homoptères, Psyllides) de la Loire-Inférieure. Nantes, Bul. soc. sci. nat., (sér. 2), **12**, 1902, (230).

**Fernald, Mrs. M. E. S.** A catalogue of the Coccidae of the world. Special bulletin. Hatch experiment station of the Massachusetts agricultural college, Amherst, Mass., Bulletin, No. **38**, 1903, (360). 23 cm.

**Guillaud, E.** La cochenille du Fusain. Toulon, Bul. soc. agricult., **1902**, (111-113). [Reproduit par le Réveil agricole.]

**Hertzog, A.** Die Schildläuse, und deren Bekämpfung. Landw. Ztg. Halberstadt, **13**, 1901, (155-156).

**Horváth, G.** Adnotationes synonymica de Hemipteris palaearcticis. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., **1**, 1903, (555-558).

**Jakovlev, V. E.** Hemiptera-Heteroptera du gouvernement d'Irkutsk. (Russ.) St. Petersburg, Hor. Soc. Ent. Ross., **36**, 1903, (317-324).

**Kellog, V. L.** Coccidae, notes. California. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., No. **40**, 1903, (83-84).

**King, G. B.** The greenhouse Coccidae. II. Lc. **13**, 1902, (152-156).

— On the progress in the description of the Coccidae. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (255-258).

— The Coccidae of Ohio. [With bibliography.] Lc. **14**, 1903, (204-206).

**Kirkaldy, G. W.** On the nomenclature of the genera of the Rhynchota Heteroptera and Auchenorrhyncha Homoptera [continuation]. Entomologist, London, **36**, 1903, (213-216, 230-232).

**Lambertie.** Note sur les Hémiptères Homoptères nouveaux et peu connus de la Gironde. Bordeaux, Actes soc. linn., (sér. 6), **7**, 1902, (Proc.-verb., LXXXVIII-LXXXII, LXXXIV, LXXXV, CLXXII-CLXXIV).

— Notes sur quelques Hémiptères-Homoptères nouveaux ou rares de la Gironde. Lc. (Proc.-verb., CLXXII-CLXXIV).

— Note sur quelques Hémiptères-Homoptères nouveaux ou peu connus de la Gironde. Lc. **58**, 1903, (Proc.-verb., XXI-XXIV).

— Note sur quelques Hémiptères nouveaux ou rares pour la Gironde. Lc. (Proc.-verb., XCVI-XCVIII).

**Melichar, L.** Homopteren-Fauna von Ceylon. Berlin (F. L. Dames), 1903, (IV + 248, mit 6 Taf.). 24 cm. 15 M.

**Montgomery, T. H. jun.** Further studies on the chromosomes of the Hemiptera Heteroptera. Philadelphia, Pa., Proc. Acad. Nat. Sci., 1901, (261-271, with pl.); [reprint], Philadelphia, Cont. Zool. Lab. Univ. Pa., 1901, 1902, (261-271, with pl.).

**Newstead, R.** Monograph of the Coccidae of the British Isles. Vol. ii. London (Ray Society), 1903, (viii + 16, pls. F. and XXXV-LXXV).

**Osborn, H.** A method for mounting dry Coccidae for permanent preservation. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., No. **40**, 1903, (35-36).

**Reh, L.** Zur Naturgeschichte mittel- und nordeuropäischer Schildläuse. Allg. Zs. Ent., Neudamm, **8**, 1903, (301-308, 351-356, 407-419, 457-469); **9**, 1904, (12-36).

**Sabrazès et Coulongeat.** Cochenille du figuier. Bordeaux, Actes soc. linn., **57**, 1902, (Proc.-verb., CLXVII-CLXVIII).

**Silvestri, F.** Coccidei parassiti della vite. Bollettino di Entomologia agraria, Padova, **9**, 1902, (74-82, 97-104, 121-128, 146-149).

**Watkins, C. J.** Coccidae in Gloucestershire. Ent. Mag., London, **39**, 1903, (294-296).

**Webster, F. M.** The Coccidae of Ohio. Philadelphia, Pa., Ent. News Acad. Nat. Sci., Amer. Ent. Soc., **14**, 1903, (288-290).

## SPECIAL.

*Aclerda japonica*, Newst. from sugarcane. **Green**, E. E. Calcutta, Ind. Mus. Notes, 5, 1903, (95).

*Akermes colimae* n. sp. Mexico. **Cockerell**, T. D. A. Entomologist, London, 36, 1903, (47).

*Aspidiotus* nn. spp. California. **Coleman**, G. A. New York, N.Y., J. Ent. Soc., 11, 1903, (61-85).

— (*Targionia*) *glomeratus* n. sp. **Green**, E. E. Calcutta, Ind. Mus. Notes, 5, 1903, (93, pl. xviii, fig. 1).

— *hederae* . . . in Victoria. [Criticism of paper by J. Lidgett; *A. hederae* same as *A. nerii*]. **Cockerell**, T. D. A. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (89).

— — — in Australia. **Lidgett**, J. Lc. (43-45).

— *perniciosus*. **Britton**, W. E. Connecticut, (State station), New Haven, Bull. No. 135, 1901, (14—with 5 pls.). 23 cm. [Review] Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., 13, 1902, (766-767).

— — — **Gossard**, H. A. Agric. Exp. Sta., Florida, Lake City, Bull. No. 61, 1902, (469-498, with 4 pls.) [Review] Washington, D.C., U.S. Dept. Agric. Off. Exp. Sta. Rec., 14, 1903, (469-470).

— — — in Japan. **Marlatt**, C. L. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. 31, 1902, (41-47).

— — — **Sajó**, K. Prometheus, Berlin, 14, 1903, (716-718).

— — — life history and enemies. **Smith**, J. B. Pennsylvania, Rep. Dept. Agric., Harrisburg, 8, pt. 1, 1902, 1903, (233-261, with pl.); Pennsylvania, Dept. Agric., Bull., Harrisburg, No. 90, 1902, (33, with pl.). 23.5 cm.

— *sacchari* in Java. **Cockerell**, T. D. A. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (24).

*Asterolecanium pustulans* (Ckll.) var. *sambuci* n. var. Egypt. **Cockerell**, T. D. A. Entomologist, London, 36, 1903, (112-113).

*Cardiococcus* n. gen., *C. umbonatus* n. sp. Mexico. **Cockerell**, T. D. A. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (155-156).

*Ceroplastes*, notes on species, with nn. spp. and nn. varr. Mexico. **Cockerell**, T. D. A. Lc. (156-161).

*Ceroputo orthezioides* n. sp. Mexico. **Cockerell**, T. D. A. Lc. (163).

— *yuccae* (Coquillett), var. *ceanothi* n. var. California. **Cockerell**, T. D. A. Lc. (163).

*Chionaspis decurvata* n. sp. on *Oryza sativa*, Calcutta. **Green**, E. E. Calcutta, Ind. Mus. Notes, 5, 1903, (63, pl. xviii, fig. 1).

*Chrysomphalus agavis* in Mexico. **Cockerell**, T. D. A. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (15).

*Coccus (Lecanium) minimus* Newstead new to America. **Cockerell**, T. D. A. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (162).

*Cryptophyllaspis liquidambaris* n. sp. Georgia and District of Columbia. **Kotinsky**, J. Washington, D.C., Proc. Ent. Soc., 5, 1903, (149-150).

*Dactylopius* nn. spp. California. **Coleman**, G. A. New York, N.Y., J. Ent. Soc., 11, 1903, (61-85).

*Diaspis pentagona*. **Gossard**, H. A. Agric. Exp. Sta., Florida, Lake City, Bull. No. 61, 1902, (469-498, with 4 pls.) [Review] Washington, D.C., U.S. Dept. Agric. Off. Exp. Sta. Rec., 14, 1903, (469-470).

— *piricola*. **Cockerell**, T. D. A. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 12, 1901, (27).

— *rosae*. **Smith**, J. B. Agric. Exp. Sta., New Jersey, New Brunswick, Bull. No. 159, 1902, (14, with 6 figs.). 23 cm. [Review] Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., 14, 1902, (372).

*Eriochiton cajuni*, Mask should be *Ceroplastodes cajani* (Mask). **Green**, E. E. Calcutta, Ind. Mus. Notes 5, 1903, (95).

*Icerya purchasi*. **Gossard**, H. A. Agric. Exp. Sta., Florida, Lake City, Bull. No. 56, 1901, (309-356, with 1 pl., 6 fig.). [Review] Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta., Rec., 13, 1902, (472).

*Inglisia bivalvata* n. sp. from *Thepesia populnea*, S. India. **Green**, E. E. Calcutta, Ind. Mus. Notes 5, 1903, (95, pl. XVIII, fig. 3).

*Kermes arizonensis* n. sp. **King**, G. B. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (21-22).

———— *quercus* Linn. new to Britain. **Newstead**, R. Ent. Mag., London, 39, 1903, (57-58).

*Lecanium hoferi* n. sp. Switzerland. **King** in Hofer, J. Schaffhausen, Mitt. Schweiz. Entomol. Ges., 10, 1903, (478)

———— *imbricans* n. sp. from *Ficus mysorensis* and *Aerocarpus frazinifolius* S. India. **Green**, E. E. Calcutta, Ind. Mus. Notes, 5, 1903, (94, pl. XVIII, fig. 2).

*Leucaspis* nn. spp. California. **Coleman**, G. A. New York, N.Y., J. Ent. Soc., 11, 1903, (68, 71).

*Lichtensia zapollana*, Ckll., var. *townsendi* n. var. Mexico. **Cockerell**, T. D. A. Ann. Mag. Nat. Hist., London, Ser. 7, 11, 1903, (162-163).

*Monophlebus stebbingi* Green attacking Sal in United Provinces and N.W. Himalayas, description, life history, distribution, relations to the forest. *M. stebbingi* var. *mangiferae* Green, attacking mango in the Punjab, description, life history, protection and points for observation. **Stebbing**, E. P. Departmental Notes on Insects that affect Forestry, No 2, Calcutta, 1903, (318, pl. xix, fig. 4, a-f, 332). 25 cm.

———— **Leach**, notes on the genus, 2 nn. spp. on *Shorea robusta* and *Dalbergia sissoo*. **Green**, E. E. Calcutta, Ind. Mus. Notes, 5, 1903, (99-101, pl. xx, figs. 586).

*Mytilaspis* nn. spp. Mexico. **Cockerell**, T. D. A. Entomologist, London, 36, 1903, (45-46).

———— *beckii* in California. **Cockerell**, T. D. A. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (17).

*Neolecanium* nn. spp. Mexico. **Cockerell**, T. D. A. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (161-162).

———— *leucaenae* n. sp. Mexico. **Cockerell**, T. D. A. Entomologist, London, 36, 1903, (46-47).

*Orthesia insignis*. Hawaii. **Koebele** A. Honolulu, Hawaii, Rep. Com. Agric. Forestry, 1902, 1903, (54-65).

*Phenacoccus gossypii*, Twms. & Ckll. var. *peidiarum* n. var. Mexico. **Cockerell**, T. D. A. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (164).

———— *kuwanae* n. sp. California. **Coleman**, G. A. New York, N.Y., J. Ent. Soc., 11, 1903, (62).

———— *simplex* n. sp. **King**, G. B. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (41-43).

———— *vipersioides* n. sp. New Mexico. **Cockerell**, W. P. and **Cockerell**, T. D. A. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., 29, 1903, (112-113).

*Physokermes* nn. spp. California. **Coleman**, G. A. New York, N.Y., J. Ent. Soc., 11, 1903, (72-73).

*Pseudococcus (Dactylopius auctt.) culatensis* n. sp. Mexico. **Cockerell**, T. D. A. Entomologist, London, 36, 1903, (45-48).

*Pseudolecanium*, list of species, *P. distictum* n. sp. California. **Kuwana**, S. J. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (134-136, with text fig.).

*Pulvinaria grabhami* n. sp. Madeira. **Cockerell**, T. D. A. Entomologist, London, 36, 1903, (261-262).

———— *simplex* n. sp. Switzerland. **King** in Hofer, J. Schaffhausen, Mitt. Schweiz. Entomol., Ges., 10, 1903, (475).

*Ripersia* nn. spp. **King**, G. B. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (41-43).

*Solenophora zapollana* n. sp. Mexico. **Cockerell**, T. D. A. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (164-165).

*Tachardia*, note on the genus, *T. fici* n. sp. *Ficus religiosa* and *F. bengalensis*, Monghyr. **Green**, E. E. Calcutta, Ind. Mus. Notes, 5, 1903, (96-97, fig. 4, pl. xix).

———— *rotundata* n. sp. W. P. & T. D. A. Ckll., Mexico. **Cockerell**, T. D. A. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (165).

## LIST OF NEW GENERA AND SPECIES.

**Abdolominus** n. gen. [Lygaeidae].

Distant. 70.

—— *intaminatus*. Distant. 70.—— *picinus*. Distant. 70.**ACALYPTA** [Tingidae].—— *sibirica*. Jakovlev. 113.**ACANALONIA** [Fulgoridae].—— *depressa*. Melichar. 148.—— *inclinata*. Melichar. 148.—— *viridis*. Melichar. 148.**ACANTHASPIS** [Reduviidae].—— *apicata*. Distant. 67.—— *binghami*. Distant. 67.—— *curvidens*. Distant. 69.—— *gregoryi*. Distant. 67.—— *lydenburgi*. Distant. 69.—— *noctis*. Distant. 67.—— *subrufa*. Distant. 67.—— *tavoyana*. Distant. 67.**ACANTHIA** [Saldidae].—— *opacula* var. *albipennis* n.  
var. Reuter. 176.**ACANTHIOSOMA** [Pentatomidae].—— *vicinia*. Reuter. 176.**ACANTHUCUS** [Membracidae].—— *kershawi*. Goding. 84.**ACESTRA** [Coreidae].—— *malayana*. Distant. 71.**ACONURA** [Jassidae].—— *colombensis*. Melichar. 147.—— *solitaris*. Melichar. 147.**ACRILLA** [Cicadidae].—— *nana*. Jacobi. 107.**ACROLEUCUS** [Lygaeidae].—— *eros*. Breddin. 29.—— *pothus*. Breddin. 29.**Acrophaea** n. gen. [Fulgoridae].

Melichar. 148.

—— *fasciata*. Melichar. 148.**Acropona** n. gen. [Jassidae]. Melichar.  
147.**ADELPHOCORIS** [Capsidae].—— *fasciaticollis*. Reuter. 178.—— *funestus*. Reuter. 178.—— *melanocephalus*. Reuter.  
178.**Adexia** n. gen. [Fulgoridae]. Melichar.  
148.—— *fouleri*. Melichar. 148.—— *melanoneura*. Melichar.  
148.**ADIPPE** [Membracidae].—— *ocellata*. Buckton. 37.—— *testudo*. Buckton. 37.**Adoxoplatys** n. gen. [Pentatomidae].

Breddin. 35.

—— *comis*. Breddin. 35.—— *minax*. Breddin. 35.**AELIA** [Pentatomidae].—— *aspera*. Jakovlev. 113.—— *granum*. Jakovlev. 113.—— *syriaca*. Horváth. 98.**Aelocoris** n. gen. [Capsidae]. Reuter.—— *alboconspersus*. Reuter.  
177.**Afiata** n. gen. [Fulgoridae]. Melichar.  
148.—— *stidli*. Melichar. 148.**Afrocastra** n. gen. [Reduviidae].

Breddin. 25.

—— *procera*. Breddin. 25.**AGALLIA** [Jassidae].—— *atrovenosa*. Melichar. 147.—— *biplagiata*. Melichar. 147.—— *quadrinotata*. Melichar.  
147.**AGONOROMA** [Pentatomidae].—— *dohrni*. Schouteden. 191.**AGRIOESTES** [Reduviidae].—— *melanopterus*. Distant. 67.**AGRIOSPHODRUS** [Reduviidae].—— *perelegans*. Breddin. 11.**AGYRIUS** [Reduviidae].—— *othello*. Breddin. 11.**AKERMES** [Coccidae].—— *colimae*. Cockerell. 61.**Alardus** n. gen. [Hydrometridae].

Distant. 67.

—— *typicus*. Distant. 67.**ALEURODES** [Aleurodidae].—— *alcocki*. Peal. 170.—— *bambusae*. Peal. 170.—— *bengalensis*. Peal. 170.—— *hoyae*. Peal. 170.—— *leakii*. Peal. 170.—— *religiosa*. Peal. 170.—— *simula*. Peal. 170.—— *quaintancei*. Peal. 170.**ALLEOCRANUM** [Reduviidae].—— *maculosum*. Distant. 71.**ALLEORHYNCHUS** [Reduviidae].—— *marginalis*. Distant. 68.**ALLOEOTOMUS** [Capsidae].—— *chinensis*. Reuter. 178.

- Altomarus** n. gen. [Lygaeidae]. Distant, 66.  
 ——— *greeni*. Distant. 66.
- ALYDUS** [Coreidae].  
 ——— *scutellatus*. Van Duzee. 211.
- AMAUROCLOPIUS** [Reduviidae].  
 ——— *ornatus*. Distant. 67.
- Ammianus** n. gen. [Tingidae]. Distant. 70.
- ANASA** [Coreidae].  
 ——— *jucunda*. Breddin. 29.
- ANCHON** [Membracidae].  
 ——— *albolineatum*. Buckton. 37.  
 ——— *dirce*. Buckton. 37.  
 ——— *remigium*. Buckton. 37.
- ANDROCLUS** [Reduviidae].  
 ——— *javanus*. Breddin. 30.  
 ——— *sculpturatus*. Breddin. 30.
- Anidora** n. gen. [Fulgoridae]. Melichar. 148.  
 ——— *fusca*. Melichar. 148.
- ANOTEROSTEMMA** [Jassidae].  
 ——— *corvinum*. Horváth. 100.
- ANTIANTHE** [Membracidae].  
 ——— *compressa*. Buckton. 37.
- ANTILOCUS** [Pyrrhocoridae].  
 ——— *pygmaeus*. Distant. 70.
- APHALARA** [Psyllidae].  
 ——— *flavilabris*. Froggatt. 77.  
 ——— *leptosturmi*. Froggatt. 77.  
 ——— *obscura*. Froggatt. 77.
- APHANUS** [Lygaeidae].  
 ——— *latus*. Distant. 70.  
 ——— *mirabilis*. Distant. 67.  
 ——— *orientalis*. Distant. 70.  
 ——— *sparsus*. Distant. 70.
- APHIS** [Aphidae].  
 ——— *atronitens*. Cockerell. 50.  
 ——— *brevis*. Sanderson. 186.  
 ——— *ochrocentri*. Cockerell. 57.  
 ——— *rociadae*. Cockerell. 50.  
 ——— *tetrapteralis*. Cockerell. 58.
- APHROPHORA** [Cercopidae].  
 ——— *deserta*. Melichar. 147.
- APIOMERUS** [Reduviidae].  
 ——— *lobulatus*. Breddin. 29.
- ARADUS** [Aradidae].  
 ——— *duryi*. Osborn. 164.
- ARCESIUS** [Reduviidae].  
 ——— *annulatus*. Distant. 67.  
 ——— *bicolor*. Distant. 71.  
 ——— *sicarius*. Breddin. 11.
- Arrianus** n. gen. [Lygaeidae]. Distant. 70.  
 ——— *cxceavatus*. Distant. 70.
- Artemidorus** n. gen. [Lygaeidae]. Distant. 66.  
 ——— *noctis*. Distant. 71.  
 ——— *ornatus*. Distant. 67.  
 ——— *pressus*. Distant. 66.  
 ——— *sobrinus*. Distant. 67.
- ASPIDIOTUS** [Coccidae].  
 ——— *californicus*. Coleman. 64.  
 ——— *coniferarum* var. *shastae* n. var. Coleman. 64.  
 ——— *ehrhorni*. Coleman. 64.  
 ——— *florenciae*. Coleman. 64.  
 ——— *glomeratus*. Green. 89.
- ASTEROLECANIUM** [Coccidae].  
 ——— *pustulans* var. *sambuci* n. var. Cockerell. 62.
- ASTINUS** [Reduviidae].  
 ——— *siamensis*. Distant. 67.
- ATHYSANUS** [Jassidae].  
 ——— *pellax*. Horváth. 100.
- ATRACIS** [Fulgoridae].  
 ——— *carinata*. Melichar. 148.  
 ——— *celebensis*. Melichar. 148.  
 ——— *collecta*. Melichar. 148.  
 ——— *consocia*. Melichar. 148.  
 ——— *corpuncata*. Melichar. 148.  
 ——— *costalis*. Melichar. 18.  
 ——— *finita*. Melichar. 148.  
 ——— *gibbosus*. Melichar. 148.  
 ——— *inquinata*. Melichar. 148.  
 ——— *insurgens*. Melichar. 148.  
 ——— *javana*. Melichar. 148.  
 ——— *latefasciata*. Melichar. 148.  
 ——— *lauta*. Melichar. 148.  
 ——— *leucophaea*. Melichar. 148.  
 ——— *lurida*. Melichar. 148.  
 ——— *mendax*. Melichar. 148.  
 ——— *nebulosa*. Melichar. 148.  
 ——— *nodosa*. Melichar. 148.  
 ——— *obtecta*. Melichar. 148.  
 ——— *scripta*. Melichar. 148.  
 ——— *subtilis*. Melichar. 148.  
 ——— *vagans*. Melichar. 148.
- Atracodes** n. gen. [Fulgoridae]. Melichar. 148.  
 ——— *corrugatus*. Melichar. 148.  
 ——— *indutus*. Melichar. 148.
- Aulacoclopius** n. gen. [Reduviidae]. Breddin. 30.  
 ——— *cyanoniger*. Breddin. 30.
- AULACOPELTUS** [Lygaeidae].  
 ——— *minor*. Distant. 69.

- AUTOMOSCELIS** [Capsidae].  
 — *noualhierii*. Reuter. 177.
- Ayrerus** n. gen. [Tingidae]. Distant. 70.
- Baptista** n. gen. [Hydrometridae].  
 — Distant. 70.  
 — *gestroi*. Distant. 70.
- Baracellus** n. gen. [Pentatomidae].  
 — Distant. 67.  
 — *lanceolatus*. Distant. 67.
- BARDISTUS** [Coreidae].  
 — *comptutus*. Breddin. 35.
- Batusa** n. gen. [Fulgoridae]. Melichar. 148.  
 — *agilis*. Melichar. 148.  
 — *conata*. Melichar. 148.
- BELOSTOMA** [Belostomidae].  
 — *candidulum*. Montandon. 150.  
 — *denticolle*. Montandon. 150.  
 — *discretum*. Montandon. 149.  
 — *horvathi*. Montandon. 150.  
 — *noualhierii*. Montandon. 149.  
 — *sanctulum*. Montandon. 150.
- BERYTUS** [Berytidae].  
 — *nigrolineatus*. Jakovlev. 117.
- BIASTICUS** [Reduviidae].  
 — *yagatinus*. Breddin. 30.  
 — *horsfeldi*. Distant. 67.  
 — *lutescens*. Breddin. 30.
- Boccharis** n. gen. [Lygaeidae]. Distant. 70.  
 — *significatus*. Distant. 70.
- Bosbequius** n. gen. [Lygaeidae].  
 — Distant. 70.  
 — *latus*. Distant. 70.
- BOTHROSTETHUS** [Coreidae].  
 — *rufulus*. Jakovlev. 115.
- BRACHYLAULAX** [Pentatomidae].  
 — *majuscula*. Distant. 67.
- BRACHYNEMA** [Pentatomidae].  
 — *balfouri*. Distant. 67.
- BRACHYSTETHUS** [Pentatomidae].  
 — *vezillum*. Breddin. 35.
- Budaesus** n. gen. [Lygaeidae]. Distant. 70.  
 — *brevipennis*. Distant. 70.
- BYRSINUS** [Pentatomidae].  
 — *petzotzi*. Jakovlev. 117.
- Bythopsyrrna** n. gen. [Fulgoridae].  
 — Melichar. 148.  
 — *illocata*. Melichar. 148.  
 — *infixa*. Melichar. 148.  
 — *sumatra*. Melichar. 148.
- CALLIPHARA** [Pentatomidae].  
 — *lanceolata*. Distant. 67.  
 — *rostrata*. Distant. 67.
- CALOCORIS** [Capsidae].  
 — *hispanicus* var. *erythronotum* n. var. Reuter. 175.  
 — *roseomaculatus* var. *decolo* n. var. Reuter. 175.
- Caloscarta** n. gen. [Cercopidae]. Breddin. 20.
- Camelocastra** n. gen. [Reduviidae].  
 — Breddin. 31.  
 — *borneensis*. Breddin. 31.  
 — *javana*. Breddin. 31.
- Camerunia** n. gen. [Fulgoridae].  
 — Melichar. 148.  
 — *integra*. Melichar. 148.
- CAMPTOBROCHIS** [Capsidae].  
 — *tibialis*. Reuter. 177.
- CAMPTOZYGUM** [Capsidae].  
 — *pumilio*. Reuter. 176.
- CAMPYLOCENTRUS** [Membracidae].  
 — *falco*. Buckton. 37.
- CAMPYLOGNATHUS** [Capsidae].  
 — *nigrigenis*. Reuter. 176.
- CANTACADER** [Tingidae].  
 — *infuscatus*. Distant. 70.
- Capnodistes** n. gen. [Cercopidae].  
 — Breddin. 20.  
 — *carpio*. Breddin. 20.  
 — *esox*. Breddin. 20.
- Caprocethera** n. gen. [Reduviidae].  
 — Breddin. 33.  
 — *cave*. Breddin. 33.
- CARCINOCHELIS** [Phymatidae].  
 — *determinatus*. Distant. 71.
- CARDIASPIS** [Psyllidae].  
 — *rubra*. Froggatt. 77.
- Cardiococcus** n. gen. [Coccidae].  
 — Cockerell. 59.  
 — *umbonatus*. Cockerell. 59.
- CARPOCORIS** [Capsidae].  
 — *lynx* var. *longiceps* n. var. Reuter. 176.
- CARTHAEA** [Fulgoridae].  
 — *acuminata*. Melichar. 148.  
 — *rectangularis*. Melichar. 148.
- Carthaeomorpha** n. gen. [Fulgoridae].  
 — Melichar. 148.  
 — *breviceps*. Melichar. 148.  
 — *rufipes*. Melichar. 148.



- CASTOLUS** [Reduviidae].  
 — *nigri-ventris*. Breddin. 29.
- CASTRUCIUS** n. gen. [Reduviidae].  
 — Distant. 67.  
 — *insignis*. Distant. 67.
- CATADIPSON** n. gen. [Pentatomidae].  
 — Breddin. 19.  
 — *aper*. Breddin. 19.
- CATALAMPUSA** n. gen. [Pentatomidae].  
 — Breddin. 35.  
 — *oenops*. Breddin. 35.
- CATHEDRA** n. gen. [Fulgoridae]. Kirkaldy.  
 — 124.
- CAZIRA** [Pentatomidae].  
 — *bergrothi*. Breddin. 12.  
 — *horvathi*. Breddin. 12.  
 — *kirkaldyi*. Breddin. 12.  
 — *montandoni*. Breddin. 12.  
 — *reuteri*. Breddin. 12.
- CELANTIA** n. gen. [Tingidae]. Distant.  
 — 70.
- CENSORINUS** n. gen. [Reduviidae]. Distant.  
 — 69.  
 — *ferrugineus*. Distant. 69.
- CENTROGONUS** [Reduviidae].  
 — *ducalis*. Distant. 67.  
 — *ochreipennis*. Breddin. 33.
- CENTROTUS** [Membracidae].  
 — *angustulus*. Melichar. 147.  
 — *crinitus*. Buckton. 37.  
 — *curvatus*. Melichar. 147.  
 — *flavolineatus*. Buckton. 37.  
 — *indicatus*. Melichar. 147.  
 — *orcus*. Buckton. 37.  
 — *selenus*. Buckton. 37.
- CENTBOTYPUS** [Membracidae].  
 — *minutus*. Goding. 84.  
 — *occidentalis*. Goding. 84.  
 — *securis*. Buckton. 37.
- CENTRUCHUS** [Membracidae].  
 — *ferrugineus*. Melichar. 147.
- CERAON** n. gen. [Membracidae]. Buckton.  
 — 37.
- CERATOFULVIUS** n. gen. [Capsidae].  
 — Reuter. 176.
- CERELLUS** n. gen. [Reduviidae]. Distant.  
 — 67.  
 — *nigricans*. Distant. 67.  
 — *typicus*. Distant. 67.
- CERILOCUS** [Reduviidae].  
 — *bicolor*. Distant. 69.  
 — *karschi*. Breddin. 33.  
 — *parvus*. Distant. 69.  
 — *pocillus*. Breddin. 33.
- CEROPIASTES** [Coccidae].  
 — *albolineatus* var. *rulcanicus*  
 — n. var. Cockerell. 59.  
 — *brachyurus*. Cockerell. 59.  
 — *marmoreus*. Cockerell. 59.  
 — *purpurellus*. Cockerell. 59.  
 — *toinssendi* var. *percrassus* n.  
 — var. Cockerell. 59.
- CEROPUTO** [Coccidae].  
 — *orthezoides*. Cockerell. 59.  
 — *yuccae* var. *ceanothi* n. var.  
 — Cockerell. 59.
- CERYNIA** [Fulgoridae].  
 — *fulgida*. Melichar. 148.  
 — *lincola*. Melichar. 148.  
 — *trilineata*. Melichar. 148.
- CETHERA** [Reduviidae].  
 — *maculipennis*. Breddin. 33.
- CHARAGOCHEILUS** [Capsidae].  
 — *duplicatus*. Reuter. 178.
- CHIASMUS** [Jassidae].  
 — *uzlii*. Melichar. 147.
- CHIONASPIS** [Coccidae].  
 — *decurvata*. Green. 88.
- CHYSOCORIS** [Pentatomidae].  
 — *auratus* var. *sanguineiventris*  
 — n. var. Breddin. 13.  
 — *sericeomicans*. Breddin. 13.  
 — *viridiventris*. Breddin. 16.
- CHYSODARECUS** n. gen. [Pentatomidae].  
 — Breddin. 35.  
 — *moneta*. Breddin. 35.
- CICADA** [Cicadidae].  
 — *bilagueata*. Uhler. 209.  
 — *egregia*. Uhler. 209.  
 — *obtusa*. Uhler. 202.  
 — *sublaqueata*. Uhler. 209.
- CICADULA** [Jassidae].  
 — *halophila*. Horváth. 100.  
 — *vaga*. Melichar. 147.
- CIXIUS** [Fulgoridae].  
 — *pilifer*. Melichar. 147.
- CLEONTES** [Reduviidae].  
 — *genitus*. Distant. 69.
- CLEPTIOLA** n. gen. [Reduviidae]. Breddin.  
 — 23.  
 — *nigrolutea*. Breddin. 23.  
 — *subobscura*. Breddin. 23.
- CLIGENES** [Lygaeidae].  
 — *patricius*. Distant. 70.
- COCURUS** [Coreidae].  
 — *subferrugineus*. Breddin,  
 — 35.

**COLGAR** [Fulgoridae].

- *centralis*. Melichar. 148.
- *composita*. Melichar. 148.
- *conficita*. Melichar. 148.
- *diversa*. Melichar. 148.
- *furtiva*. Melichar. 148.
- *indicata*. Melichar. 148.
- *punctulata*. Melichar. 148.
- *similata*. Melichar. 148.
- *tripunctata*. Melichar. 148.

**Collinatus** n. gen. [Tingidae]. Distant. 70.

**COLOBASIATES** [Lygaeidae].

- *albipes*. Breddin. 27.
- *flavidus*. Breddin. 27.
- *fulvicollis*. Breddin. 27.
- *nigrifrons*. Breddin. 27.

**Compsonannus** n. gen. [Capsidae]. Reuter. 175.

— *puncticornis*. Reuter. 175.

**Conogonia** n. gen. [Jassidae]. Breddin. 20.

- *hebetula*. Breddin. 20.
- *placidula*. Breddin. 20.
- *trucidula*. Breddin. 20.

**COPTOSOMA** [Pentatomidae].

- *josuae*. Horváth. 98.
- *mirabilis*. Distant. 67.

**CORANOPSIS** [Reduviidae].

- *rossi*. Distant. 69.

**CORANUS** [Reduviidae].

- *atricapillus*. Distant. 66.

**CORIZUS** [Coreidae].

- *robinsoni*. Distant. 71.

**COSMOCARTA** [Cercopidae].

- *aglaie*. Breddin. 7.
- *briscis*. Breddin. 32.
- *cassandra*. Breddin. 32.
- *chryseis*. Breddin. 32.
- *crocale*. Breddin. 7.
- *deianira*. Breddin. 32.
- *erato*. Breddin. 32.
- *eurydice*. Breddin. 32.
- *fruhstorfi*. Jacobi. 105.
- *herate*. Breddin. 32.
- *hecuba*. Breddin. 32.
- *helenia*. Breddin. 32.
- *hippodamia*. Breddin. 32.
- *hyphinos*. Breddin. 7.
- *leucothoe*. Breddin. 32.
- *medea*. Breddin. 32.
- *mnemosyne* n. nom. Breddin 32.
- *niobe*. Breddin. 32.
- *phiale*. Breddin. 7.
- *philomele*. Breddin. 32.
- *polyxena*. Breddin. 32.

**COSMOCARTA** [Cercopidae].

- *progne*. Breddin. 32.
- *silpha*. Breddin. 32.
- *trichodias*. Jacobi. 105.

**COSMOCLEPTUS** [Reduviidae].

- *rubromarginatus*. Distant. 67.

**COSMOLESTES** [Reduviidae].

- *insignis*. Distant. 69.

**Courtesius** n. gen. [Pyrrhocoridae]. Distant. 70.

- *illuminatus*. Distant. 70.

**Cricetoparels** n. gen. [Reduviidae].

- Breddin. 14.
- *bol. tiana*. Breddin. 14.

**Critobulus** n. gen. [Lygaeidae]. Distant. 70.

- *insignis*. Distant. 70.

**CROMNA** [Fulgoridae].

- *aspera*. Melichar. 148.
- *frontalis*. Melichar. 148.
- *notata*. Melichar. 148.
- *survecta*. Melichar. 148.

**Cryptoflata** n. gen. [Fulgoridae]. Melichar. 148.

- *demota*. Melichar. 148.
- *flavoputata*. Melichar. 148.
- *nigrolimbata*. Melichar. 148.
- *partula*. Melichar. 148.

**CRISTOPHYLLASPIS** [Coccidae].

- *liquidambaris*. Kotinsky. 131.

**Ctenomelyntus** n. gen. [Coreidae]. Breddin. 35.

- *brunneiventris*. Breddin. 35.
- *cozalis*. Breddin. 35.

**CUTOCORIS** [Reduviidae].

- *fasciativentris*. Breddin. 11.

**CYARDA** [Fulgoridae].

- *angustatus*. Melichar. 148.

**CYDNOCORIS** [Reduviidae].

- *tabularis*. Distant. 67.

**Gyphodermidea** n. gen. [Capsidae]. Reuter. 178.

- *vari-gata*. Reuter. 178.

**CYRTOMENUS** [Pentatomidae].

- *vestigatus*. Distant. 65.

**CYRTOPELTIS** [Capsidae].

- *tenuis*. Reuter. 178.

**DACTYLOPIUS** [Coccidae].

- *andersoni*. Coleman. 64.
- *dudleyi*. Coleman. 64.

- Daimon** n. gen. [Membracidae]. Buckton. 37.  
 ——— *satyrus*. Buckton. 37.
- DAMUS** [Membracidae].  
 ——— *gracilis*. Goding. 84.
- DARAXA** [Reduviidae].  
 ——— *carnifex*. Breddin. 22.
- DASOALIA** [Fulgoridae].  
 ——— *albomaculata*. Melichar. 148.  
 ——— *breddini*. Melichar. 148.  
 ——— *confusa*. Melichar. 148.  
 ——— *contorta*. Melichar. 148.  
 ——— *decora*. Melichar. 148.  
 ——— *emota*. Melichar. 148.  
 ——— *fumata*. Melichar. 148.  
 ——— *marginata*. Melichar. 148.  
 ——— *ornata*. Melichar. 148.  
 ——— *propria*. Melichar. 148.  
 ——— *revestita*. Melichar. 148.  
 ——— *scabrida*. Melichar. 148.  
 ——— *spilota*. Melichar. 148.
- Dascalina** n. gen. [Fulgoridae].  
 ——— Melichar. 148.  
 ——— *aegrota*. Melichar. 148.  
 ——— *alternans*. Melichar. 148.  
 ——— *contorta*. Melichar. 148.  
 ——— *reversa*. Melichar. 148.
- DAENUS** [Membracidae].  
 ——— *gracilis*. Goding. 84.  
 ——— *nodosus*. Buckton. 37.
- DELACAMPIUS** [Pyrrhocoridae].  
 ——— *typicus*. Distant. 71.
- DELTOCEPHALUS** [Jassidae].  
 ——— *bimaculatus*. Melichar. 147.  
 ——— *infirmus*. Melichar. 147.  
 ——— *intermedius*. Melichar. 147.  
 ——— *laetus*. Melichar. 147.  
 ——— *oneratus*. Melichar. 147.  
 ——— *porticus*. Melichar. 147.  
 ——— *rufolineatus*. Melichar. 147.  
 ——— *substriatus*. Then. 208.  
 ——— *sursumflexus*. Then. 208.
- Dendrophora** n. gen. [Fulgoridae].  
 ——— Melichar. 147.  
 ——— *ramosa*. Melichar. 147.
- DERAEOCORIS** [Capsidae].  
 ——— *cordiger* var. *fallaciosa* n. var. Reuter. 179.  
 ——— *schach* var. *nigrita* n. var. Reuter. 176.  
 ——— var. *rutiloides* n. var. Reuter. 176.
- DEREPTERYX** [Coreidae].  
 ——— *laticornis*. Breddin. 34.
- Derisa** n. gen. [Fulgoridae]. Melichar. § 148.  
 ——— *atrata*. Melichar. 148.
- DERMATINUS** [Pyrrhocoridae].  
 ——— *lugubris*. Distant. 70.
- Dermofata** n. gen. [Fulgoridae]. Melichar. 148.  
 ——— *rotundata*. Melichar. 148.
- Dichobothrium** n. gen. [Pentatomidae].  
 ——— Breddin. 34.  
 ——— *elasmostethoides*. Breddin. 34.  
 ——— *sastragaloides*. Breddin. 34.  
 ——— *tenuispinum*. Breddin. 34.
- DICHROSOTYUS** [Capsidae].  
 ——— *handlirschi*. Reuter. 176.
- DICTYONOTA** [Tingidae].  
 ——— *idonea*. Jakovlev. 115.
- DICTYOPHARA** [Fulgoridae].  
 ——— *bistriata*. Melichar. 147.  
 ——— *hastata*. Melichar. 147.
- Dictyopharina** n. gen. [Fulgoridae].  
 ——— Melichar. 147.  
 ——— *viridissima*. Melichar. 147.
- DICYPTUS** [Capsidae].  
 ——— *geniculatus* var. *disrupta* n. var. Reuter. 179.
- DIEUCHES** [Lygaeidae].  
 ——— *fuscans*. Distant. 70.  
 ——— *pallidulus*. Distant. 70.  
 ——— *uniformis*. Distant. 70.
- DIMORPHOCORIS** [Capsidae].  
 ——— *lividipennis*. Reuter. 179.
- Dingkana** n. gen. [Membracidae].  
 ——— Goding. 84.  
 ——— *borealis*. Goding. 84.
- DINOMACHUS** [Lygaeidae].  
 ——— *sikhimensis*. Distant. 70.
- Diplosiactanthia** n. gen. [Reduviidae].  
 ——— Breddin. 33.  
 ——— *monticola*. Breddin. 33.
- DOMNUS** [Reduviidae].  
 ——— *coloratus*. Distant. 67.
- Doratulina** n. gen. [Jassidae]. Melichar. 147.  
 ——— *jocosa*. Melichar. 147.
- DORATURA** [Jassidae].  
 ——— *concora*. Horváth. 99.  
 ——— *exilis*. Horváth. 99.  
 ——— *heterophylla*. Horváth. 96.  
 ——— *salina*. Horváth. 99.
- Doria** n. gen. [Fulgoridae]. Melichar. 148.

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- DREPANOPSALTRIA** [Cicadidae].  
 — *russula*. Jacobi. 107.
- DYSDEROUS** [Pyrrhocoridae].  
 — *migratorius*. Distant. 70.
- ECCRITOTARSUS** [Capsidae].  
 — *orchidearum*. Reuter. 176.
- ECTMETOCARA** [Pentatomidae].  
 — *virescens*. Distant. 67.
- EOTRICHODIA** [Reduviidae].  
 — *humeralis*. Breddin. 31.  
 — *praecox*. Breddin. 31.  
 — *scutellaris*. Breddin. 31.
- EDESSA** [Pentatomidae].  
 — *addax*. Breddin. 28.  
 — *arcuballista*. Breddin. 26.  
 — *argali*. Breddin. 28.  
 — *arrogantula*. Breddin. 26.  
 — *bibos*. Breddin. 28.  
 — *civilis*. Breddin. 28.  
 — *dorcas*. Breddin. 28.  
 — *gazella*. Breddin. 28.  
 — *graminicolor*. Breddin. 28.  
 — *ibex*. Breddin. 28.  
 — *imbecilla*. Breddin. 26.  
 — *lavata*. Breddin. 26.  
 — *leucoryx*. Breddin. 28.  
 — *musimon*. Breddin. 28.  
 — *oryx*. Breddin. 28.  
 — *pacifica*. Breddin. 28.  
 — *pugil*. Breddin. 28.  
 — *roratitensis*. Breddin. 26.  
 — *ruficapra*. Breddin. 28.  
 — *saiga*. Breddin. 28.  
 — *sternalis*. Breddin. 26.  
 — *tragelaphus*. Breddin. 28.  
 — *tragulus*. Breddin. 28.  
 — *urus*. Breddin. 28.  
 — *zebu*. Breddin. 28.
- EDOCIA** [Reduviidae].  
 — *pilosula*. Distant. 67.  
 — *slateri*. Distant. 67.
- Egropa** n. gen. [Fulgoridae]. Melichar. 147.  
 — *inusta*. Melichar. 147.
- Elaphiceps** n. gen. [Membracidae].  
 — Buckton. 37.  
 — *cervus*. Buckton. 37.
- ELASMOSTETHUS** [Pentatomidae].  
 — *minax*. Breddin. 34.
- Emphusis** n. gen. [Membracidae].  
 — Buckton. 37.  
 — *tumescens*. Buckton. 37.
- EMPOASCA** [Jassidae].  
 — *centromaculata*. Melichar. 147.  
 — *citrina*. Melichar. 147.
- EMPOASCA** [Jassidae].  
 — *miniata*. Melichar. 147.  
 — *notata*. Melichar. 147.  
 — *petasata*. Melichar. 147.  
 — *rufa*. Melichar. 147.
- ENDOCHUS** [Reduviidae].  
 — *carbonarius*. Breddin. 11.  
 — *merula*. Distant. 66.  
 — *migratorius*. Distant. 67.  
 — *modestus*. Distant. 67.  
 — *subniger*. Distant. 66.
- Entisberus** n. gen. [Lygaeidae]. Distant. 66.  
 — *archetypus*. Distant. 66.
- ENTYLIA** [Membracidae].  
 — *oedipus*. Buckton. 37.
- Eoscarta** n. gen. [Cercopidae]. Breddin. 7.  
 — *bicolor*. Breddin. 7.  
 — *eos*. Breddin. 7.  
 — *litternoides*. Breddin. 7.
- EPICLINES** [Jassidae].  
 — *godmani*. Fowler. 76.
- EPIDAUUS** [Reduviidae].  
 — *bicolor*. Distant. 67.  
 — *pretiosus*. Distant. 67.
- Epirama** n. gen. [Fulgoridae]. Melichar. 147.  
 — *conspersgata*. Melichar. 147.
- ERACHITEUS** [Pentatomidae].  
 — *ventralis*. Breddin. 25.
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- Euphanta** n. gen. [Fulgoridae].  
 — Melichar. 148.  
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- EUPTERYX** [Jassidae].  
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- Exoma** n. gen. [Fulgoridae]. Melichar.  
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- Flatina** n. gen. [Fulgoridae]. Melichar.  
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 — *binotata*. Melichar. 148.  
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- Flatosoma** n. gen. [Fulgoridae]. Meli-  
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 — *signoreti*. Melichar. 148.

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— *salebrosa*. Breddin. 31.
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- Glossopeltis** n. gen. [Capsidae]. Reuter.  
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— *nervosus*. Melichar. 147.  
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— *typus*. Distant. 70.
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— *pallascens*. Distant. 67.
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 \_\_\_\_\_ *orientalis*. Distant. 70.
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- Hellona** n. gen. [Jassidae]. Melichar. 147.  
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 ——— *grandis*. Distant. 70.
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 ——— *longipennis*. Breddin. 33.
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 ——— *biseratensis*. Distant. 71.  
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 ——— *inconspicuus*. Buckton. 37.
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 ——— *alatus*. Distant. 70.
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 ——— *electa*. Melichar. 148.  
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 ——— *patricia*. Melichar. 148.  
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- LAMPROCORIS** [Pentatomidae].  
 ——— *smaragdus*. Breddin. 12.
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 ——— *stylata*. Buckton. 37.
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 ——— *fuscipennis*. Melichar. 147.  
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 — *cinctus*. Buckton. 37.  
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 — *matronalis*. Breddin. 35.
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 — *picta*. Melichar. 147.
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 — *rufipictus*. Breddin. 31.
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 — *andinola*. Breddin. 35.
- LYCODERES** [Membracidae].  
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 — *igniventer*. Buckton. 37.  
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 — *complicatus*. Melichar. 147.  
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 — *laticornis*. Buckton. 37.

- MELANOCORYPHUS** [Lygaeidae].  
 — *putoni*. Reuter. 176.
- MELUCHA** [Coreidae].  
 — *acutispina*. Breddin. 35.  
 — *ruficornis*. Breddin. 35.
- Meluchopetalops** n. gen. [Coreidae].  
 — Breddin. 35.  
 — *banausus*. Breddin. 35.
- MENACARUS** [Pentatomidae].  
 — *eremita*. Jakovlev. 115.  
 — *jakovleffi*. Reuter. 176.
- MENDIS** [Reduviidae].  
 — *aemula*. Breddin. 31.
- MENIDA** [Pentatomidae].  
 — *pocila*. Jakovlev. 117.
- Mesargus** n. gen. [Jassidae]. Melichar.  
 — 147.  
 — *asperatus*. Melichar. 147.
- Mesophantia** n. gen. [Fulgoridae].  
 — Melichar. 148.  
 — *pal'ens*. Melichar. 148.
- Mesophylla** n. gen. [Fulgoridae].  
 — Melichar. 148.  
 — *correcta*. Melichar. 148.  
 — *inelinata*. Melichar. 148.
- METHEIRA** [Membracidae].  
 — *cucullata*. Buckton. 37.  
 — *s'nuata*. Buckton. 37.
- METROCORIS** [Hydrometridae].  
 — *aethiops*. Distant. 67.  
 — *illustrarius*. Distant. 70.  
 — *natalensis*. Distant. 67.  
 — *nigrofasciatus*. Distant. 71.
- MICRODEUTERUS** [Pentatomidae].  
 — *javanus*. Breddin. 34.
- Microfata** n. gen. [Fulgoridae].  
 — Melichar. 148.  
 — *stictica*. Melichar. 148.
- Microsanta** n. gen. [Reduviidae].  
 — Breddin, G.  
 — *aurantiacea*. Breddin. 31.  
 — *sanguinea*. Breddin. 31.
- Microsiphum** n. gen. [Aphidae].  
 — Cholodkovskij. 44.  
 — *ptarmiacae*. Cholodkovskij. 44.
- MICROVELIA** [Hydrometridae].  
 — *repentina*. Distant. 70.  
 — *singalensis*. Kirkaldy. 124.
- Mioscarta** n. gen. [Cercopidae].  
 — Breddin. 7.
- MIRAMBELUS** [Reduviidae].  
 — *morio*. Breddin. 24.
- MOGANNIA** [Cicadidae].  
 — *caesar*. Jacobi. 105.
- MONANTHIA** [Tingidae].  
 — *corniculata*. Jakovlev. 113.  
 — *distans*. Jakovlev. 113.  
 — *longipennis*. Jakovlev. 113.  
 — *taurica*. Jakovlev. 116.
- MONOPHEBUS** [Coccidae].  
 — *dalbergiae*. Green. 89.  
 — *selbingi*. Green. 89.
- MYIOPHANES** [Reduviidae].  
 — *greeni*. Distant. 70.  
 — *karenia*. Distant. 70.
- MYLOPHANES** [Reduviidae].  
 — *pilipes*. Distant. 67.
- MYNDUS** [Fulgoridae].  
 — *fulvus*. Osborn. 166.  
 — *radicis*. Osborn. 165.
- MYRMES** [Coreidae].  
 — *hirsutus*. Jakovlev. 116.
- MYTILASPIS** [Coccidae].  
 — *mimosarum*. Cockerell. 61.  
 — *townsendiana*. Cockerell. 61.
- MYZUS** [Aphidae].  
 — *phenax*. Cockerell. 50.
- NABIS** [Reduviidae].  
 — *telomi*. Distant. 71.
- NAGUSTA** [Reduviidae].  
 — *albata*. Distant. 69.  
 — *calamobata*. Breddin. 30.  
 — *subflava*. Distant. 69.
- NALATA** [Reduviidae].  
 — *armiventris*. Breddin. 24.
- Narsetes** n. gen. [Reduviidae].  
 — Distant. 67.  
 — *longinus*. Distant. 67.
- Naudarensia** n. gen. [Lygaeidae].  
 — Distant. 70.  
 — *pedata*. Distant. 70.
- NEOTAROSIPHON** [Aphidae].  
 — *rhinanthi*. Schouteden. 190.
- NEMATOPUS** [Coreidae].  
 — *nigriventris*. Breddin. 29.  
 — *rufipes*. Breddin. 29.
- Neocerus** n. gen. [Fulgoridae].  
 — Melichar. 148.  
 — *corniculatus*. Melichar. 148.
- Neodactus** n. gen. [Jassidae].  
 — Melichar. 147.  
 — *acocephaloides*. Melichar. 147.

**NEODIUS** [Pentatomidae].

- *aethiopicus*. Distant. 67.  
 — *angulatus*. Distant. 67.

**NEOLECANIUM** [Coccidae].

- *leucaenae*. Cockerell. 61.  
 — *manzanillense*. Cockerell. 59.  
 — *plebeium*. Cockerell. 59.

**NEOTTIGLOSSA** [Pentatomidae].

- *calva*. Jakovlev. 111.  
 — *cephalotes*. Jakovlev. 112.  
 — *compta*. Jakovlev. 112.  
 — *nigella*. Jakovlev. 112.  
 — *seorsa*. Jakovlev. 112.

**NEPHESA** [Fulgoridae].

- *aegrota*. Melichar. 148.  
 — *albopunctulata*. Melichar. 148.  
 — *brunnea*. Melichar. 148.  
 — *longipennis*. Melichar. 148.  
 — *rubrotestacea*. Melichar. 148.

**NEUROCTENUS** [Aradidae].

- *affinis*. Distant. 70.  
 — *elongatus*. Osborn. 164.

**NEZARA** [Pentatomidae].

- *gentilis*. Breddin. 35.  
 — *pulchricornis*. Breddin. 25.  
 — *satunini*. Jakovlev. 115.  
 — *viridula* var. *hepatica* n. var. Horváth. 98.

**NIRVANA** [Jassidae].

- *decora*. Melichar. 147.  
 — *pallida*. Melichar. 147.  
 — *suturalis*. Melichar. 147.

**Nisia** n. gen. [Fulgoridae]. Melichar. 147.**Notoscirta** n. gen. [Cercopidae].

- Breddin. 7.  
 — *croceonigra*. Breddin. 7.  
 — *ptyeloides*. Breddin. 7.

**NYSIUS** [Lygaeidae].

- *dohertyi*. Distant. 70.  
 — *inconspicuus*. Distant. 70.

**ODOPOEA** [Cicadidae].

- *biolleyi*. Distant. 65.

**OEDA** [Membracidae].

- *frondosa*. Buckton. 37.

**OLIARUS** [Fulgoridae].

- *tabrobanensis*. Melichar. 147.

**Oncacontias** n. gen. [Pentatomidae].

- Breddin. 34.  
 — *brunneipennis*. Breddin. 34.

**ONOCOCEPHALUS** [Reduviidae].

- *klugi*. Distant. 70.  
 — *lineosus*. Distant. 70.  
 — *morosus*. Distant. 70.  
 — *picturatus*. Distant. 70.

**ONCODOCHILUS** [Pentatomidae].

- *cruciatus*. Breddin. 29.

**ONCOMETOPIA** [Jassidae].

- *undata* : *garryae* n. subsp. Cockerell. 60.

**Onychotrechus** n. gen. [Hydrometridae].

- Kirkaldy. 124.  
 — *rhexenor*. Kirkaldy. 124.

**OPHICENTRUS** [Membracidae].

- *curricornis*. Buckton. 37.  
 — *varipennis*. Buckton. 37.

**OPISTHOPLATYS** [Reduviidae].

- *majusculus*. Distant. 70.

**OPISTOPLATYS** [Reduviidae].

- *immundus*. Breddin. 30.  
 — *nanus*. Breddin. 30.  
 — *nigripes*. Breddin. 30.  
 — *oculatus*. Breddin. 30.

**Orcheama** n. gen. [Fulgoridae]. Melichar. 147.

- *marginipunctata*. Melichar. 147.  
 — *serendiba*. Melichar. 147.

**ORMENIS** [Fulgoridae].

- *albata*. Melichar. 148.  
 — *albicosta*. Melichar. 148.  
 — *albina*. Melichar. 148.  
 — *antoniae*. Melichar. 148.  
 — *apicalis*. Melichar. 148.  
 — *chloris*. Melichar. 148.  
 — *coerulescens*. Melichar. 148.  
 — *colorata*. Melichar. 148.  
 — *conflicta*. Melichar. 148.  
 — *conformata*. Melichar. 148.  
 — *conformis*. Melichar. 148.  
 — *confusa*. Melichar. 148.  
 — *debilis*. Melichar. 148.  
 — *despecta*. Melichar. 148.  
 — *distincta*. Melichar. 148.  
 — *exanthema*. Melichar. 148.  
 — *fatua*. Melichar. 147.  
 — *funerula*. Melichar. 148.  
 — *fusca*. Melichar. 148.  
 — *fuscata*. Melichar. 148.  
 — *fuscomarginata*. Melichar. 148.  
 — *fuscula*. Melichar. 148.  
 — *granulata*. Melichar. 148.  
 — *indigena*. Melichar. 148.  
 — *laevis*. Melichar. 148.  
 — *media*. Melichar. 148.  
 — *mendax*. Melichar. 148.

## ORMENIS [Fulgoridae].

- *nigromarginata*. Melichar. 148.  
 — *obtusa*. Melichar. 148.  
 — *ornata*. Melichar. 148.  
 — *pallida*. Melichar. 148.  
 — *parvula*. Melichar. 148.  
 — *pauperata*. Melichar. 148.  
 — *proxima*. Melichar. 148.  
 — *separata*. Melichar. 148.  
 — *severa*. Melichar. 148.  
 — *similis*. Melichar. 148.  
 — *striolata*. Melichar. 148.  
 — *stipida*. Melichar. 148.  
 — *tumida*. Melichar. 148.  
 — *umbrosa*. Melichar. 148.  
 — *venusta*. Melichar. 148.  
 — *viridana*. Melichar. 148.  
 — *viridifusca*. Melichar. 148.

## ORTHOTYLUS [Capsidae].

- *curvipennis*. Reuter. 175.

## ORYZA n. gen. [Fulgoridae]. Melichar. 148.

- *extendens*. Melichar. 148.

## OSTACOPS [Lygaeidae].

- *occidentalis*. Distant. 70.

## OTARIS n. gen. [Membracidae]. Buckton. 37.

- *auritus*. Buckton. 37.

## OTINOTUS n. gen. [Membracidae].

- Buckton. 37.  
 — *belus*. Buckton. 37.  
 — *midas*. Buckton. 37.

## OXYCAENUS [Lygaeidae].

- *heraldus*. Distant. 70.

## OXYGONIA [Membracidae].

- *acuminata*. Buckton. 37.

## OXYRACHIDIA n. gen. [Membracidae]. Melichar. 147.

## OXYRHACHIS [Membracidae].

- *concolor*. Buckton. 37.  
 — *lignicola*. Buckton. 37.  
 — *neglectus*. Buckton. 37.  
 — *tanganensis*. Buckton. 37.  
 — *uncatus*. Melichar. 147.

## PACHYCORIS [Pentatomidae].

- *ruth*. Breddin. 35.

## PACHYGRONTHA [Lygaeidae].

- *dixonii*. Distant. 70.

## PACHYPSIS [Jassidae].

- *chlorophana*. Melichar. 147.

## PALOPTUS [Reduviidae].

- *molochinus*. Distant. 67.  
 — *papuensis*. Distant. 67.  
 — *sulphurellus*. Distant. 67.

## PANTHOUS [Reduviidae].

- *bimaculatus*. Distant. 67.  
 — *tarsatus*. Distant. 67.

## PANTILIUS [Capsidae].

- *gonoceroides*. Reuter. 178.

## PARACROMNA n. gen. [Fulgoridae]. Melichar. 148.

## PARAFIATA n. gen. [Fulgoridae]. Melichar. 148.

## PARALYGYUS n. gen. [Jassidae]. Melichar. 147.

- *diraricatus*. Melichar. 147.

## PARANDA n. gen. [Fulgoridae]. Melichar. 147.

- *globiceps*. Melichar. 147.

## PARANOTUS [Fulgoridae].

- *obsoletus*. Melichar. 148.  
 — *praetextus*. Melichar. 148.

## PARAPANTILIUS n. gen. [Capsidae]. Reuter. 178.

- *thibetanus*. Reuter. 178.

## PARATANGIA n. gen. [Fulgoridae]. Melichar. 147.

- *fimbriolata*. Melichar. 147.  
 — *marginata*. Melichar. 147.  
 — *notata*. Melichar. 147.

## PARATELLA n. gen. [Fulgoridae]. Melichar. 148.

- *discoidalis*. Melichar. 148.  
 — *erudita*. Melichar. 148.  
 — *fumaria*. Melichar. 148.  
 — *fusconigra*. Melichar. 148.  
 — *miniata*. Melichar. 148.  
 — *modesta*. Melichar. 148.  
 — *roseoalba*. Melichar. 148.  
 — *subflava*. Melichar. 148.

## PARATHISIA n. gen. [Fulgoridae]. Melichar. 148.

- *conjugata*. Melichar. 148.

## PARNISA [Cicadidae].

- *angulata*. Uhler. 209.  
 — *protracta*. Uhler. 209.

## PARUSSELLA n. gen. [Fulgoridae]. Melichar. 147.

- *peyllomorpha*. Melichar. 147.

## PASIROPSIS [Reduviidae].

- *morio*. Breddin. 33.

## PATERCULUS [Pentatomidae].

- *conspersus*. Distant. 71.

- Pedalion** n. gen. [Membracidae]. Buckton. 37.  
 ——— *ornatum*. Buckton. 37.  
 ——— *punctipennis*. Buckton. 37.  
 ——— *triste*. Buckton. 37.
- Penottus** n. gen. [Tingidae]. Distant. 71.  
 ——— *jalorensis*. Distant. 71.
- Pergandeida** n. gen. [Aphidae]. Schouteden. 190.  
 ——— *ononides*. Schouteden. 190.
- PERIGENES** [Lygaeidae].  
 ——— *fallax*. Heidemann. 93.
- PERITRECHUS** [Lygaeidae].  
 ——— *aeruginosus*. Distant. 70.
- PERITTOPUS** [Hydrometridae].  
 ——— *rufus*. Distant. 70.
- Perkinsiella** n. gen. [Fulgoridae]. Kirkaldy. 124.  
 ——— *saccharicida*. Kirkaldy. 124.
- PETALOCHIRUS** [Reduviidae].  
 ——— *fasciatus*. Distant. 71.  
 ——— *spinosissimus*. Distant. 71.
- PETALOPS** [Coreidae].  
 ——— *proletarius*. Breddin. 35.  
 ——— *triumphator*. Breddin. 35.
- Phaerotus** n. gen. [Membracidae]. Buckton. 37.  
 ——— *stipulipennis*. Buckton. 37.
- PHANTIA** [Fulgoridae].  
 § ——— *cylindricornis*. Melichar. 148.
- Phasmatoecoris** n. gen. [Reduviidae]. Breddin. 29.  
 ——— *spectrum*. Breddin. 29.
- PHENACOCOCCUS** [Coccidae].  
 ——— *gossypii* var. *psidium* n. var. Cockerell. 59.  
 ——— *kuwanae*. Coleman. 64.  
 ——— *simplex*. King. 119.  
 ——— *tipersoides*. Cockerell, W. P. & Cockerell, T. D. A. 48.
- PHILIA** [Pentatomidae].  
 ——— *compacta*. Breddin. 13.  
 ——— *dohertyi*. Distant. 67.  
 ——— *leucochalcona*. Breddin. 13.
- PHIMODERA** [Pentatomidae].  
 ——— *aridella*. Jakovlev. 114.  
 ——— *bianchii*. Jakovlev. 109.  
 ——— *borealis*. Jakovlev. 114.  
 ——— *caucasica*. Jakovlev. 109.  
 ——— *picturata*. Jakovlev. 109.
- PHLEBOPTERUM** [Fulgoridae].  
 ——— *angulatum*. Melichar. 148.  
 ——— *maculatum*. Melichar. 148.  
 ——— *viridis*. Melichar. 148.
- PHLEGYAS** [Lygaeidae].  
 ——— *burmanus*. Distant. 70.
- PHONEROGATES** [Reduviidae].  
 ——— *imperator*. Breddin. 33.  
 ——— *quadrimaculatus*. Distant. 69.
- PHORTICUS** [Reduviidae].  
 ——— *cingalensis*. Distant. 68.
- Phyllidea** n. gen. [Capsidae]. Reuter.  
 ——— *henschi*. Reuter.
- PHYLLIDINUS** [Fulgoridae].  
 ——— *fuscous*. Osborn. 166.  
 ——— *koebelei*. Osborn. 166.
- Phyma** n. gen. [Fulgoridae]. Melichar. 148.  
 ——— *arguta*. Melichar. 148.  
 ——— *divisa*. Melichar. 148.  
 ——— *exsoleta*. Melichar. 148.  
 ——— *imitata*. Melichar. 148.  
 ——— *optata* var. *partita* n. var. Melichar. 148.
- PHYMATHOSTETHA** [Cercopidae].  
 ——— *icterica*. Jacobi. 105.  
 ——— *insignis*. Jacobi. 105.  
 ——— *moi*. Jacobi. 105.  
 ——— *peltasta*. Jacobi. 105.  
 ——— *quadriplagiata*. Jacobi. 105.
- PHYSODERUS** [Reduviidae].  
 ——— *brunneus*. Breddin. 33.  
 ——— *fuscus*. Breddin. 33.  
 ——— *nigroalbus*. Breddin. 33.  
 ——— *serraticollis*. Breddin. 33.
- PHYSOKERMES** [Coccidae].  
 ——— *concolor*. Coleman. 64.  
 ——— *taxifoliae*. Coleman. 64.
- PHYSORHYNCHUS** [Reduviidae].  
 ——— *abbreviatus*. Distant. 69.  
 ——— *costalis*. Distant. 69.  
 ——— *croceatus*. Distant. 69.  
 ——— *insignis*. Distant. 70.  
 ——— *malabaricus*. Distant. 70.  
 ——— *principalis*. Distant. 69.  
 ——— *rubromaculatus*. Distant. 70.  
 ——— *splendens*. Distant. 69.  
 ——— *talpus*. Distant. 70.
- PHYTOCRIS** [Capsidae].  
 ——— *lesnei*. Reuter. 175.
- PILOPHORUS** [Capsidae].  
 ——— *scutellaris*. Reuter. 175.

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- Pinkimerus** n. gen. [Lygaeidae].  
 Distant. 70.  
 — *sesquipedalis*. Distant. 70.
- PIRATES** [Reduviidae].  
 — *erebus*. Distant. 69.  
 — *rendalli*. Distant. 69.
- Platerus** n. gen. [Reduviidae]. Distant.  
 76.  
 — *pilcheri*. Distant. 67.
- PLATYCRANUS** [Capsidae].  
 — *metriorrhynchus*. Reuter.  
 178.
- PLATYMERIS** [Reduviidae].  
 — *elegans*. Breddin. 21.
- Platyretus** n. gen. [Jassidae]. Melichar.  
 147.  
 — *marginatus*. Melichar. 147.
- Pleroma** n. gen. [Fulgoridae]. Melichar.  
 147.  
 — *ceylonica*. Melichar. 147.  
 — *fumata*. Melichar. 147.
- PLOIARIA** [Reduviidae].  
 — *greeni*. Distant. 70.
- PLOIARIOLA** [Reduviidae].  
 — *contaminata*. Distant. 71.
- PLYNUS** [Reduviidae].  
 — *santosioides*. Breddin. 23.
- PODOPS** [Pentatomidae].  
 — *malayensis*. Distant. 71.
- Poecilofata** n. gen. [Fulgoridae]. Meli-  
 char. 148.  
 — *uniformis*. Melichar. 148.
- POEKILOPTERA** [Fulgoridae].  
 — *aperta*. Melichar. 148.  
 — *aurantiaca*. Melichar. 148.  
 — *minor*. Melichar. 148.  
 — *saturata*. Melichar. 148.
- Pogon** n. gen. [Membracidae]. Buckton.  
 37.  
 — *incurvatum*. Buckton. 37.
- POLIDICS** [Reduviidae].  
 — *australis*. Distant. 67.
- Polocentrus** n. gen. [Membracidae].  
 Buckton. 37.  
 — *latipes*. Buckton. 37.  
 — *newer*. Buckton. 37.  
 — *rufus*. Buckton. 37.
- POLYCRATES** [Lygaeidae].  
 — *nexus*. Distant. 70.
- POLYTES** [Pentatomidae].  
 — *fenestra*. Breddin. 26.

- POLYTOXUS** [Reduviidae].  
 — *geniculatus*. Breddin. 30.  
 — *nitidicollis*. Breddin. 30.  
 — *pallascens*. Distant. 67.  
 — *procerus*. Breddin. 30.
- Porocorhinus** n. gen. [Membracidae].  
 Goding. 84.  
 — *mastersi*. Goding. 84.
- Porophloeus** n. gen. [Fulgoridae].  
 Melichar. 148.  
 — *fuscus*. Melichar. 148.  
 — *gibbulus*. Melichar. 148.  
 — *ignarus*. Melichar. 148.  
 — *longiceps*. Melichar. 148.  
 — *marcidus*. Melichar. 148.
- Porta** n. gen. [Coreidae]. Distant. 71.  
 — *gracilis*. Distant. 71.
- POTHEA** [Reduviidae].  
 — *haematogaster*. Breddin.  
 24.
- Prioptychomia** n. gen. [Coreidae].  
 Breddin. 34.  
 — *euryptera*. Breddin. 34.
- PRISTHESANCUS** [Reduviidae].  
 — *aurantiacus*. Breddin. 30.  
 — *chrysilis*. Distant. 66.  
 — *maculiventris*. Breddin. 30.  
 — *melus*. Distant. 66.  
 — *modestus*. Breddin. 30.  
 — *nigroannulatus*. Distant.  
 67.  
 — *uniformis*. Distant. 67.  
 — *variabilis*. Distant. 67.  
 — *wallacei*. Distant. 67.
- Proctophantasta** n. gen. [Pentatomidae].  
 Breddin. 34.  
 — *colax*. Breddin. 34.  
 — *diabolus*. Breddin. 34.  
 — *satanas*. Breddin. 34.
- Psacasta** [Pentatomidae].  
 — *pallida*. Reuter. 176.
- Psallodia** n. gen. [Cicadidae]. Uhler.  
 210.  
 — *espini*. Uhler. 210.
- PSALLUS** [Capsidae].  
 — *scutellaria*. Reuter. 175.
- PSEUDOCOCCUS** [Coccidae].  
 — *culatensis*. Coakerell. 61.
- PSEUDOLECANIUM** [Coccidae].  
 — *distichium*. Kuwana. 133.
- PSYLLA** [Psyllidae].  
 — *acaciae-dealbutae*. Froggatt.  
 77.  
 — *acaciae-juniperinae*. Frog-  
 gatt. 77.  
 — *gracilis*. Froggatt. 77.

- Pterosticta** n. gen. [Membracidae].  
     Buckton. 37.  
     *interposita*. Buckton. 37.
- Pterygoma** n. gen. [Fulgoridae].  
     Melichar. 147.  
     *nasuta*. Melichar. 147.
- PTILOMERA** [Reduviidae].  
     *argus*. Breddin. 10.  
     *dromas*. Breddin. 10.  
     *hylactor*. Breddin. 10.  
     *laelaps*. Breddin. 10.
- PTYELUS** [Cercopidae].  
     *congolensis*. Schouteden. 192.  
     *declatus*. Melichar. 147.  
     *grossus* var. *immaculatus*. Schouteden. 192.  
     ———— var. *nigripes* n. var. Schouteden. 192.  
     *pallidus*. Melichar. 147.
- PUBLILIA** [Membracidae].  
     *grisea*. Buckton. 37.
- PULVINARIA** [Coccidae].  
     *grabhami*. Cockerell. 63.  
     *simplex*. King in Hofer. 95.
- Putala** n. gen. [Fulgoridae]. Melichar. 47.  
     *rostrata*. Melichar. 47.
- Pyramba** n. gen. [Membracidae].  
     Buckton. 37.  
     *aurifacies*. Buckton. 37.
- Pyrgophyllum** n. gen. [Membracidae].  
     Breddin. 9.  
     *foersteri*. Breddin. 9.  
     *kinabalense*. Breddin. 9.  
     *wallacei*. Breddin. 9.
- Pythamus** n. gen. [Jassidae]. Melichar. 147.  
     *dealbatus*. Melichar. 147.
- Rabduchus** n. gen. [Membracidae].  
     Buckton. 37.  
     *gnomon*. Buckton. 37.
- Radha** n. gen. [Fulgoridae]. Melichar. 147.  
     *acuminata*. Melichar. 147.
- REDUVIUS** [Reduviidae].  
     *mashonae*. Distant. 69.  
     *semenovi*. Jakovlev. 116.
- RHACOGNATHUS** [Pentatomidae].  
     *callosus*. Horváth. 98.
- RHAGOVELIA** [Hydrometridae].  
     *insignis*. Distant. 71.  
     *maculata*. Distant. 67.
- RHINGINIA** [Reduviidae].  
     *haenschi*. Breddin. 14.
- RHINOCOLA** [Psyllidae].  
     *multicolor*. Froggatt. 77.  
     *nigripennis*. Froggatt. 77.
- Rhinofulvius** n. gen. [Capsidae]. Reuter. 176.
- Rhinophantia** n. gen. [Fulgoridae].  
     Melichar. 148.
- Rhopaliceschatus** n. gen. [Capsidae].  
     Reuter. 178.  
     *quadrinaculatus*. Reuter. 178.
- RHOTANA** [Fulgoridae].  
     *albata*. Melichar. 147.  
     *iridipennis*. Melichar. 147.
- RICANIA** [Fulgoridae].  
     *distincta*. Melichar. 147.
- RICOLLA** [Reduviidae].  
     *femoralis*. Distant. 67.  
     *jamaicensis*. Distant. 67.
- RIPERSIA** [Coccidae].  
     *cockerellae*. King. 119.  
     *fimbriatula*. Cockerell & King. 119.
- RISIBIA** [Pentatomidae].  
     *geniculata*. Horváth. 98.
- Sadoletus** n. gen. [Lygaeidae]. Distant. 70.  
     *validus*. Distant. 70.
- SANTOSIA** [Reduviidae].  
     *schultheissi*. Breddin. 31.
- Sanurus** n. gen. [Fulgoridae]. Melichar. 148.  
     *dubius*. Melichar. 148.  
     *venosus*. Melichar. 148.
- Sardia** n. gen. [Fulgoridae]. Melichar. 147.  
     *rostrata*. Melichar. 147.
- Sarima** n. gen. [Fulgoridae]. Melichar. 147.  
     *elongata*. Melichar. 147.  
     *illibata*. Melichar. 147.
- SASSULA** [Fulgoridae].  
     *similata*. Melichar. 147.
- SASTRAGALA** [Pentatomidae].  
     *guttamellis*. Breddin. 34.  
     *amaragdina*. Distant. 66.
- SCADRA** [Reduviidae].  
     *rufithorax*. Breddin. 31.

- SCANTIUS** [Pyrrhocoridae].  
 — *pallens*. Distant. 70.
- SCAPHOIDEUS** [Jassidae].  
 — *elegantulus*. Melichar. 147.  
 — *morosus*. Melichar. 147.  
 — *ornatus*. Melichar. 147.
- Scarpantina** n. gen. [Fulgoridae]. Melichar. 148.  
 — *stigmatia*. Melichar. 148.
- SCHIRUS** [Pentatomidae].  
 — *coeruleus*. Reuter. 176.
- Schultzeissidia** n. gen. [Reduviidae].  
 — Breddin. 33.  
 — *mitis*. Breddin. 33.
- SCIOCORIS** [Pentatomidae].  
 — *agnatus*. Jakovlev. 116.  
 — *dilutus*. Jakovlev. 116.  
 — *lautus*. Horváth. 98.  
 — *modestus*. Horváth. 98.  
 — *placidus*. Jakovlev. 114.
- SCIPINIA** [Reduviidae].  
 — *arenacea*. Distant. 67.
- SCOLOPOSTETHUS** [Lygaeidae].  
 — *ornandus*. Distant. 70.
- SEHIRIUS** [Pentatomidae].  
 — *coeruleus*. Reuter. 176.
- SELENOCEPHALUS** [Jassidae].  
 — *disparatus*. Melichar. 147.  
 — *dolens*. Melichar. 147.
- SELIZA** [Fulgoridae].  
 — *partita*. Melichar. 148.  
 — *simonyi*. Melichar. 148.  
 — *socotrina*. Melichar. 148.  
 — *squamosa*. Melichar. 148.  
 — *variata*. Melichar. 148.
- Sephena** n. gen. [Fulgoridae]. Melichar. 148.  
 — *conspersa*. Melichar. 148.  
 — *cyanea*. Melichar. 148.  
 — *despecta*. Melichar. 148.  
 — *guttifera*. Melichar. 148.  
 — *interstincta*. Melichar. 148.  
 — *lurida*. Melichar. 148.  
 — *pulchra*. Melichar. 148.  
 — *punctula*. Melichar. 148.  
 — *rubrovenosa*. Melichar. 148.  
 — *rufomarginata*. Melichar. 148.  
 — *scutellata*. Melichar. 148.
- SEPONTIA** [Pentatomidae].  
 — *formosa*. Distant. 67.
- SERTORIUS** [Membracidae].  
 — *brevicornis*. Goding. 84.  
 — *curvicaudus*. Goding. 84.  
 — *giganticus*. Goding. 81.  
 — *tepperi*. Goding. 81.
- SEXTIUS** [Membracidae].  
 — *depressus*. Goding. 84.
- SIGNORETTIA** [Jassidae].  
 — *gratiosa*. Melichar. 147.
- SINDALA** [Reduviidae].  
 — *purpurascens*. Distant. 67.
- SINEA** [Reduviidae].  
 — *confusa*. Caudell. 42.
- SINIERUS** [Lygaeidae].  
 — *cingalensis*. Distant. 70.
- SIPHANTA** [Fulgoridae].  
 — *minuta*. Melichar. 148.
- SIRTHENEA** [Reduviidae].  
 — *africana*. Distant. 69.
- SOLENOPHORA** [Coccidae].  
 — *zapollana*. Cockerell. 59.
- SPHAEROCENTRUS** [Membracidae].  
 — *luteus*. Buckton. 37.
- SPHEDANOCORIS** [Reduviidae].  
 — *camerunensis*. Breddin. 33.
- SPHEDANOLESITES** [Reduviidae].  
 — *annulipes*. Distant. 66.  
 — *elegans*. Distant. 67.  
 — *funeralis*. Distant. 67.  
 — *incertis*. Distant. 67.  
 — *ornatellus*. Distant. 67.  
 — *sericatus*. Breddin. 30.  
 — *signatus*. Distant. 67.  
 — *singularis*. Distant. 69.  
 — *stigmatellus*. Distant. 67.  
 — *vesbioides*. Breddin. 30.
- SPINIGER** [Reduviidae].  
 — *fugax*. Breddin. 24.  
 — *mordax*. Breddin. 24.  
 — *nugax*. Breddin. 24.  
 — *pertinax*. Breddin. 24.  
 — *rapax*. Breddin. 24.  
 — *sagax*. Breddin. 24.  
 — *torax*. Breddin. 24.
- SPONDYLASPIS** [Psyllidae].  
 — *hirsutus*. Froggatt. 77.  
 — *nigro-cincta*. Froggatt. 77.
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 — *luteovaria*. Distant. 71.
- STALIASTES** [Reduviidae].  
 — *melancholicus*. Breddin. 33.
- STENOLAEMUS** [Reduviidae].  
 — *atkinsoni*. Distant. 67.  
 — *greeni*. Distant. 67.  
 — *marshalli*. Distant. 69.
- Stenometapodus** n. gen. [Coreidae].  
 — Breddin. 35.  
 — *V-luteum*. Breddin. 35.



- STENOSCELIDIA** [Coreidae].  
 — *hilaris*. Breddin. 35.  
 — *nigroaenea*. Breddin. 35.  
**Stiborus** n. gen. [Fulgoridae]. Melichar. 147.  
 — *viridis*. Melichar. 147.  
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 — *neriosa*. Buckton. 37.  
**Suffenus** n. gen. [Lygaeidae]. Distant. 70.  
**SYCANUS** [Reduviidae].  
 — *obtusifurcatus*. Breddin. 11.  
**SYSTELLONOTUS** [Capsidae].  
 — *championi*. Reuter. 179.  
**TACHARDIA** [Coccidae].  
 — *fici*. Green. 89.  
 — *rotundata*. Ccærell. 59.  
**TALATINGA** [Cicadidae].  
 — *distanti*. Jacobi. 105.  
**Tangina** n. gen. [Fulgoridae]. Melichar. 147.  
 — *bipunctata*. Melichar. 147.  
**Tauriona** n. gen. [Membracidae]. Buckton. 37.  
 — *obesum*. Buckton. 37.  
**TELAMONA** [Membracidae].  
 — *brevis*. Ball. 2.  
 — *brunneipennis*. Buckton. 37.  
 — *compacta*. Ball. 2.  
 — *decorata*. Ball. 2.  
 — *dorsalis*. Buckton. 37.  
 — *ehrhorni*. Ball. 2.  
 — *extrema*. Ball. 2.  
 — *gibba*. Buckton. 37.  
 — *lugubris*. Ball. 2.  
 — *obsoleta*. Ball. 2.  
 — *pruinosa*. Ball. 2.  
 — *pulchella*. Ball. 2.  
 — *turritella*. Buckton. 37.  
 — *viridis*. Ball. 2.  
**Temesa** n. gen. [Fulgoridae]. Melichar. 147.  
 — *punctula*. Melichar. 147.  
 — *tenella*. Melichar. 147.  
**TERPNOSIA** [Cicadidae].  
 — *posidonia*. Jacobi. 105.  
**TESSARATOMA** [Pentatomidae].  
 — *usambarica*. Breddin. 23.  
**TETROXIA** [Reduviidae].  
 — *blanda*. Breddin. 18.  
 — *nigricollis*. Breddin. 33.  
 — *piceipes*. Breddin. 33.  
 — *scurra*. Breddin. 33.  
 — *severa*. Breddin. 33.  
 — *spurea*. Breddin. 33.  
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 — *lyncea*. Horváth. 96.  
**TETTIGONIA** [Jassidae].  
 — *ceylonica*. Melichar. 147.  
 — *exigua*. Melichar. 147.  
 — *festiva*. Melichar. 147.  
 — *fuscotensa*. Melichar. 147.  
 — *gagatina*. Melichar. 147.  
 — *matulinula*. Breddin. 20.  
 — *moronula*. Breddin. 20.  
 — *mutata*. Melichar. 147.  
 — *rubromaculata*. Melichar. 147.  
 — *respertinula*. Breddin. 20.  
**Tettigoscarta** n. gen. [Cercopidae]. Breddin. 7.  
 — *nitidula*. Breddin. 7.  
 — *pulchrosula*. Breddin. 7.  
 — var. *luteicollis* n. var. Breddin. 7.  
**Thagria** n. gen. [Jassidae]. Melichar. 147.  
 — *fasciata*. Melichar. 147.  
**THAMNOTETTIX** [Jassidae].  
 — *albogutulatus*. Melichar. 147.  
 — *eicur*. Melichar. 147.  
 — *fraudulentus*. Horváth. 96.  
 — *greeni*. Melichar. 147.  
 — *umbratus*. Melichar. 147.  
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 — *wellingtoniae*. Froggatt. 77.  
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 — *politus*. Distant. 70.  
**THERANEIS** [Pyrrhocoridae].  
 — *amabilis*. Breddin. 26.  
**THRACIA** [Fulgoridae].  
 — *egregia*. Melichar. 147.  
**TIARODES** [Reduviidae].  
 — *picturatus*. Distant. 67.  
 — *waterstradii*. Breddin. 33.  
**Tiarodurganda** n. gen. [Reduviidae]. Breddin. 33.  
 — *apicalis*. Breddin. 33.  
**TIBICEN** [Cicadidae].  
 — *reductus*. Jacobi. 105.  
**TIBILIS** [Pentatomidae].  
 — *glabriuscula*. Breddin. 35.  
 — *scabriuscula*. Breddin. 35.  
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 — *peringueyi*. Distant. 69.

- Timuria** n. gen. [Pentatomidae]. Horváth. 98.  
 ——— *melanocera*. Horváth. 98.
- TINICEPHALUS** [Capsidae].  
 ——— *pulcher*. Reuter. 175.
- TOMASPIS** [Cercopidae].  
 ——— *haglundii*. Schouteden. 192.  
 ——— *mirabilis*. Schouteden. 192.
- TRACHELIUM** [Coreidae].  
 ——— *mimeticum*. Breddin. 29.
- TRIATOMA** [Reduviidae].  
 ——— *migrans*. Breddin. 33.
- TRIBELOCEPHALA** [Reduviidae].  
 ——— *oculata*. Distant. 67.  
 ——— *ornata*. Distant. 67.  
 ——— *spurca*. Breddin. 30.  
 ——— *tristis*. Breddin. 25.
- Trichoscarta** n. gen. [Cercopidae].  
 ——— Breddin. 7.  
 ——— *ruth*. Breddin. 7.
- Tricoceps** n. gen. [Membracidae]. Buckton. 37.  
 ——— *brunneipennis*. Buckton. 37.
- TRIOZA** [Psyllidae].  
 ——— *alexina*. Marriner. 144.  
 ——— *dobsoni*. Froggatt. 77.  
 ——— *oleariae*. Froggatt. 77.  
 ——— *taemaniensis*. Froggatt. 77.  
 ——— *tristaniae*. Froggatt. 77.
- TRIPHLEPS** [Anthocoridae].  
 ——— *oblongus*. Reuter. 176.
- TROPIDOTYLUS** [Pentatomidae].  
 ——— *annandalei*. Distant. 71.
- TROPISTETHUS** [Lygaeidae].  
 ——— *pallipes*. Reuter. 176.
- TUPONIA** [Capsidae].  
 ——— *concinna*. Reuter. 175.  
 ——— *moualhierii*. Reuter. 175.  
 ——— *tamariscis* var. *cunealis* n.  
     var. Reuter. 175.  
 ——— *tincta*. Jakovlev. 115.  
 ——— *vitticollis*. Reuter. 175.
- Typhoscoris** n. gen. [Pentatomidae].  
 ——— Breddin. 20.
- TYPHLOCYBA** [Jassidae].  
 ——— *bipunctula*. Melichar. 147.  
 ——— *curraz*. Melichar. 147.  
 ——— *fumigata*. Melichar. 147.  
 ——— *funesta*. Melichar. 147.  
 ——— *orbata*. Melichar. 147.  
 ——— *tripunctula*. Melichar. 147.
- Udalricus** n. gen. [Lygaeidae]. Distant. 70.  
 ——— *scutellatus*. Distant. 70.
- Udugama** n. gen. [Fulgoridae]. Melichar. 147.  
 ——— *exoleta*. Melichar. 147.
- Urana** n. gen. [Fulgoridae]. Melichar. 148.  
 ——— *paradoxa*. Melichar. 148.
- Urentius** n. gen. [Tingidae]. Distant. 70.  
 ——— *echinus*. Distant. 70.
- UXANTIS** [Fulgoridae].  
 ——— *elongata*. Melichar. 148.  
 ——— *illota*. Melichar. 148.  
 ——— *nexa*. Melichar. 148.  
 ——— *patula*. Melichar. 148.  
 ——— *reversa*. Melichar. 148.  
 ——— *scissa*. Melichar. 148.  
 ——— *solennis*. Melichar. 148.  
 ——— *subrufescens*. Melichar. 148.
- Uzelina** n. gen. [Jassidae]. Melichar. 147.  
 ——— *laticeps*. Melichar. 147.
- VACHIRIA** [Reduviidae].  
 ——— *insignis*. Jakovlev. 110.  
 ——— *semenovi*. Jakovlev. 110.
- VELINUS** [Reduviidae].  
 ——— *foersteri*. Breddin. 30.  
 ——— *pallidus*. Distant. 67.  
 ——— *parvus*. Distant. 67.  
 ——— *princeps*. Distant. 67.
- VEJITRA** [Reduviidae].  
 ——— *mazima*. Breddin. 33.
- VILIUS** [Reduviidae].  
 ——— *monocerus*. Breddin. 31.
- VITUMNUS** [Reduviidae].  
 ——— *scenicus* var. *barbertonus* n.  
     var. Distant. 69.  
 ——— var. *lydenburgus*  
     var. Distant. 69.  
 ——— var. *mashunus* n.  
     n. var. Distant. 69.  
 ——— var. *nyasanus*  
     n. var. Distant. 69.  
 ——— var. *pretorius*  
     n. var. Distant. 69.  
 ——— var. *rhoderianus*  
     n. var. Distant. 69.  
 ——— var. *salisburyanus*  
     n. var. Distant. 69.
- Walkeria** n. gen. [Fulgoridae]. Melichar. 148.

- NESTOCEPHALUS** [Jassidae].  
 — *apicalis*. Melichar. 147.  
 — *paganurus*. Melichar. 147.  
**YOLINUS** [Reduviidae].  
 — *conspicuus*. Distant. 67.  
 — *mouhouiti*. Distant. 67.  
 § *Zarudnya* n. gen. [Fulgoridae]. Melichar. 148.  
 — *fusca*. Melichar. 148.  
 — *interstitialis*. Melichar. 148.

**4203-4231 DIPTERA (EXCL.  
 SIPHONAPTERA  
 WHICH ARE  
 PLACED IN 3603-  
 3631).**

**TITLES.**

- Aigner-Abad**, L. von. Die Kolumbäcker Fliege. Allg. Zs. Ent., Neudamm, 8, 1903, (93-96, 124-127). [4231]. 1  
**Attkin**, E. H. Notes of a tour in the North Canara district of India in search of mosquitoes. J. trop. Med., London, 5, 1903, (325, 326, 341, 342). [4227 ef 4231]. 2  
**Annett**, H. E., **Dutton**, J. E. and **Elliot**, J. H. Report of the Malaria Expeditions to Nigeria. Liverpool Sch. Trop. Medicine, Mem. 3. London (Longmans, Green & Co.), 1902, (63, 2 pls., besides charts and illustrs.). [0060 0403 0427 fd 4203 4227 fd]. 3  
**Austen**, E. E. [Exhibition of specimens of *Glossina palpalis* Rob.-Desb. with pupae.] London, Proc. Zool. Soc., 1903, 2, (316-317). [4215 4231]. 4  
 — Notes on *Hippoboscidae* (Diptera Pupipara) in the collection of the British Museum. Ann. Mag. Nat. Hist., London, (Ser. 7), 41, 1903, (255-266). [4231]. 5  
 — A monograph of the Tsetse-flies [genus *Glossina* Westwood] based on the collection in the British Museum. With a chapter on the mouthparts by H. J. Hansen. London, (British Museum), 1903, (ix + 319, 9 pls. [Reviews], Zoologist, London, 1903; Nature, London, 69, 1903, (123). [4207 4203 4231]. 6

**Balfour**, A. Mosquitoes and steamers. J. trop. Med., London, 6, 1903, (253). [0060 4203]. 7

**Bandi**, Ivo. Gelbfieber und Mosquitos. Eine kritische Studie. Centralbl. Bakt., Jena, Abt. 1, 35, Originale, 1903, (323-326). [4210]. 8

— Yellow fever and mosquitoes. J. trop. Med., London, 6, 1903, (254-256). [0060 4219]. 9

**Banks**, Nathan. Note on *Ceria willistonii* Kahl. Washington, D.C., Proc. Ent. Soc., 5, 1903, (310). [4231]. 10

**Becker**, Th. Die paläarktischen Formen der Gattung *Mulio* Latreille. Zs. Hymenopter., Tschendorf, 3, 1903, (17-32, 89-96, 193-198). [4231]. 11

— Berichtigung zu Jg. II, H. 5, p. 298 [betr. *Notiphila nigripennis* Meig.]. Zs. Hymenopter., Tschendorf, 3, 1903, (45-46). [4231]. 12

— Die Typen der v. Roser'schen Dipteren-Sammlung in Stuttgart. Stuttgart, Jahreshefte Ver. Natk., 59, 1903, (52-66). [4231]. 13

— Aegyptische Dipteren, gesammelt und beschrieben. [In: Berlin, Mitt. zool. Mus., 2, H. 2. 3.] Berlin, 1902-1903, (195, mit 5 Taf.). [4227 fb 4231]. 14

**Berlese**, Antonio. La questione della mosca olearia. Bollettino di Entomologia agraria, Padova, 9, 1902, (180-184). [4219 4231]. 15

— L'accoppiamento della mosca domestica. Riv. patol. veg., Portici, 9, fasc. 2°, 1902, (345-357, con fig.). [4211 4231]. 16

**Beutenmüller**, W[illia]m. [Breeding *Culex restuans* from water putrified by dead animal matter.] Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (269). [4219 4231]. 17

**Bischof**, Josef. Ueber die Dipterenfaunen mit besonderer Berücksichtigung von Prof. G. Strobl's Dipterenfauna von Bosnien, Herzegovina und Dalmatien. Wien, Verh. ZoolBot. Ges., 51, 1901, (115-119). [4227a]. 18

**Bloomfield**, E. N. Norfolk Diptera. Norwich, Trans. Nat. Soc., 7, 1903, (541-552). [4227 de]. 19

**Börner**, Carl. Eine neue im weiblichen Geschlecht flügel- und halteren-

Iose Sciaridengattung, nebst Bemerkungen über die Segmentierung des Hinterleibes der Dipteren-Weibchen. (Vorläuf. Mitt.). Zool. Anz., Leipzig, **26**, 1903, (495-504, 505-508). [4231 4207]. 20

Bogdanow, E. A. Zehn Generationen der Fliegen (*Musca domestica*) in veränderten Lebensbedingungen. (Versuche, angestellt von Fr. N. J. Polevaieff.) Allg. Zs. Ent., Neudamm, **8**, 1903, (265-267). [4211]. 21

Bordi, A. Contribuzione alla sistematica dei Culicidi, con speciale riguardo alla diffusione della malaria umana. Roma, Rend. Acc. Lincei, (Ser. 5), **11**, (2<sup>a</sup> Sem.), 1902, (318-324). [4231]. 22

Bruce, D., Nabarro, D. and Greig, E. D. W. Can the Uganda Tsetse fly (*Glossina palpalis*) carry the *Trypanosoma* found in sleeping sickness cases to healthy animals? London (Royal Soc.), Rep. Sleeping-sickness Comm. No. 4, (56-64, map). [0060 4219 4231]. 23

Bruce, Charles Thomas. A monograph of the North American *Phoridae* [with bibliography]. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (331-404, with pl.). [4227 g 4231]. 24

Notes on some California myrmecophiles. [*Hetaerius tristriatus* Horn and Syrphid larva.] Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, ([47-149], with fig. in text). [4231 4831]. 25

A Dexid parasite [*Melanophora roralis*] of the sow-bug. [*Porcellio*.] Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (291). [2631 4219 4231]. 26

v. Melander, Axel Leonard.

Celli, A. La malaria en Italie durant l'année 1902. Recherches épidémiologiques et prophylactiques. Arch. ital. biol., Paris, **37**, 1902, (209-241). [4219]. 27

Chapman. Galls of *Asphondylia ulicis*. Entomologist, London, **36**, 1903, (252). [4219]. 28

Cristophers, S. R. v. Stephens, J. W. W.

Cogill, H. The *Anopheles* of Karwar (North Kanara). Bombay, J. Nat. Hist. Soc., **15**, 1903, (327-336, 1 pl.). [4231]. 29

Conte, A. et Vaney, C. Sur la structure de la cellule trachéale de l'Estre et l'origine des formations ergastoplasmiques. Paris, C.-R. Acad. sci., **136**, 1903, (561-562). [4207 4231]. 30

v. Vaney, C.

Coquillett, D[aniel] W[illiam]. The genera of the Dipterous family *Empididae* with notes and new species. [With bibliography.] Washington, D.C., Proc. Ent. Soc., **5**, 1903, (245-272). [4231]. 31

Three new species of Diptera. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **12**, 1901, (16-18). [4231]. 32

Three new species of Nematocerous [Nematocerous] Diptera. [nn. spp. in *Ceratopogon*, *Tanytus*, and *Corethra*.] Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (84-85). [4231]. 33

A new Ephydriid [*Hydrellia tritici* n. sp.]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (324). [4227 ic 4231]. 34

Some insects of the Hudsonian zone in New Mexico. Diptera. Psyche, Cambridge, Mass., **9**, 1901, (149-150). [4227 gi 4231 2427 gi]. 35

Czerny, Leander. Ueber *Drosophila costata* und *fuscimana* Ztt. Zs. Hymenopter., Teschendorf, **3**, 1903, (198-201). [4231]. 36

Zwei neue *Homalomyia*-Arten aus Bolivien. Zs. Hymenopter., Teschendorf, **3**, 1903, (239-240). [4231]. 37

Dams, Erich. *Sciara (giraudi* aff.), ein Schädling junger Kakteenkulturen. Monatschr. Kakteenk., Neudamm, **13**, 1903, (20-23). [4219 4231]. 38

Daubach. Die Bienenlaus. Schweiz. Bienenztg. Aarau, **25**, 1902, (447-449). [4219 4231 4619]. 39

Dorr, Emile. Rareté des lépidoptères. Abondance de parasites. Feuille jeunes natural., Paris, (sér. 4), **34**, 1903, (38). [4419 4619 4219]. 40

Dupree, J. W. v. Morgan, H. A.

**Durham, H. E.** Notes on collecting mosquitoes. J. trop. Med., London, **6**, 1903, (297-298). [4203]. 41

**Dutton, J. E. v. Annett, H. E.**

**Dyar, Harrison G[ray].** Notes on mosquitoes in New Hampshire. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (140-148, with pl.). [4227 gg 4231]. 42

———— *Culex restuans* Theobald. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (41-42). [4231]. 43

———— *Culex atropalpus*, Coquillett. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (180-182). [4231]. 44

———— Illustrations of the larvae of North American *Culicidae*. 3. New York, N.Y., J. Ent. Soc., **11**, 1903, (23-27, with pl.). [4215 4231]. 45

**Dy6, Léon.** Notes et observations sur les Culicides. Arch. parasit., Paris, **6**, 1902, (359-376, av. fig.). [4231 4219]. 46

**Eckel, Lida S.** The resin-gnat *Diplosis* and three of its parasites. Philadelphia, Pa., Ent. News Acad. Nat. Sci., Amer. Ent. Soc., **14**, 1903, (279-284, with pl.). [4231 4619 4631]. 47

**Elliot, J. H. v. Annett, H. E.**

**Enderlein, Günther.** *Micropsocus musae* (Kunstler et Chaine), eine vermeintliche Gallmücke (*Kiefferia musae* n. g. n. sp. Kunstler et Chaine 1902). Zool. Jahrb., Jena, Abt. f. Syst., **19**, 1903, (288-292). [4231 3331]. 48

———— Die Landarthropoden der von der Tiefsee-Expedition besuchten antarktischen Inseln. I. Die Insekten und Arachnoideen der Kerguelen. II. Die Landarthropoden der antarktischen Inseln St. Paul und Neu-Amsterdam (Wissenschaftliche Ergebnisse der deutschen Tiefsee-Expedition, Bd. 3, Lfg. 7). Jena, 1903, (197-270, mit 10 Taf.). 35 cm. [2427 oc mb 2431 3631 4231 4431]. 49

**Escher-Kündig, J.** (Fliegen deren Larven im menschlichen Körper beobachtet wurden.) Schaffhausen, Mitt. Schweiz. Entomol. Ges., **10**, 1903, (446-448). [4219 6019]. 49A

**Escherich, K[arl] und Wimmer, E.** Ueber eine Galle an der Weisstanne *Abies pectinata*. Allg. Zs. Ent., Neudamm, **8**, 1903, (119-120). [4219]. 50

**Evans, W.** Diptera in the Edinburgh (Forth) District. Ann. Scot. Nat. Hist., Edinburgh, **1903**, (247-249). [4203 4227 de]. 51

**Ficker, M[artin].** Typhus und Fliegen. Vorläufige Mitteilung. Arch. Hyg., München, **46**, 1903, (274-283). [4219 4231]. 52

**Freund, L.** Dermatomyiasis. Verh. Ges. D. Natf., Leipzig, **73**, (1901), II, 2, 1902, (450-451). [4219]. 53

**Freysainge, L. et Neveu-Lemaire, M.** Rôle des moustiques dans la propagation de la filariose et de la fièvre jaune. Bul. sci. pharm., Paris, **3**, 1901, (81-92, av. fig.). [1410 1431 4219 4231]. 54

**Galli-Valerio, Bruno.** Les nouvelles recherches sur l'action des puces des rats et des souris dans la transmission de la peste bubonique. (Revue critique.) Centralbl. Bakt., Jena, Abt. 1, **33**, Referate, 1903, (753-757). [4219 4231]. 55

———— Notes de parasitologie. Centralbl. Bakt., Jena, Abt. 1, **35**, Originale, 1903, (81-91). [0219 0419 0431 1219 1231 1419 1431 4219]. 56

———— et Rochaz de Jongh, Jeanne. Sur la présence de *Mochlonyx relutinus*, Ruthe dans le canton de Vaud. Lausanne, Bull. Soc. Sci. Nat., (sér. 4), **39**, 1903, (453-460, av. 1 pl.); Arch. Sci. Phys. Genève, (sér. 4), **15**, 1903, (226-227). [4227 4231]. 57

**Geddings, H. D.** The fly and mosquito as carriers of disease. Washington, D.C., Treasury Dept., Pub. Hlth. Mar. Hosp. Ser. Hyg. Lab. Bull. Rep., **18**, (Supplement), 1903, (10). 23 cm. [4231 4219]. 58

**Giles, G. M.** On prepupal changes in the larvae of the *Culicidae*. J. Trop. Med., London, **6**, 1903, (185-188). [4215]. 59

**Gillanders, A. T.** Notes on miscellaneous arboreal insects. [The traces of frass of larvae.] Manchester, Trans. Microsc. Soc., 1902, (72-80, pl. 1). [4419 4231]. 60

**Glaser, E.** Der Heerwurm. Aus d. Heimat, Stuttgart, **15**, 1902, (126-129). [4231]. 61

**Greig, E. D. v. Bruce, T.**

**Girard, A.** *Hypoderma bovis* [Réponse à une question de M. H. Giraudeau]. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (102-103). [4219 4231]. 62



- LEPTOCENTRUS** [Membracidae].  
 — *aduncus*. Buckton. 37.  
 — *canescens*. Buckton. 37.  
 — *cinctus*. Buckton. 37.  
 — *imitator*. Buckton. 37.  
 — *ustus*. Buckton. 37.
- Leptomendis** n. gen. [Reduviidae].  
 — Breddin. 31.  
 — *bipartita*. Breddin. 31.
- LEPTOSCELIS** [Coccidae].  
 — *matronalis*. Breddin. 35.
- LEPTYRONIA** [Cercopidae].  
 — *picta*. Melichar. 147.
- LEUCASPIS** [Coccidae].  
 — *cupressi*. Coleman. 64.  
 — *kelloggi*. Coleman. 64.
- LIBURNIA** [Fulgoridae].  
 — *albugutata*. Melichar. 147.  
 — *albomarginata*. Melichar. 147.  
 — *flavida*. Melichar. 147.  
 — *frontalis*. Melichar. 147.  
 — *fumipennis*. Melichar. 147.  
 — *minutula*. Melichar. 147.  
 — *pallidula*. Melichar. 147.
- Libyomendis** n. gen. [Reduviidae].  
 — Breddin. 25.  
 — *haematobapha*. Breddin. 25.
- Lichena** n. gen. [Fulgoridae]. Melichar. 148.
- LICHTENSIA** [Coccidae].  
 — *zapotlana* var. *townsendi* n. var. Cockerell. 59.
- Lillocoridia** n. gen. [Capsidae]. Reuter. 178.  
 — *mutabilis*. Reuter. 178.
- LISARDA** [Reduviidae].  
 — *aethiopica*. Distant. 67.  
 — *erecta*. Distant. 70.  
 — *recurva*. Distant. 70.
- LOCNIS** [Cercopidae].  
 — *apicalis haglundia*. litt. Schouteden. 192.  
 — *biguttula*. Schouteden. 192.  
 — *distanti*. Schouteden. 192.  
 — *fusca*. Schouteden. 192.  
 — *ochracea*. Schouteden. 192.  
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 — *tricolor*. Schouteden. 192.  
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- LOPODYTES** [Reduviidae].  
 — *mashonae*. Distant. 69.
- LOHICERUS** [Reduviidae].  
 — *rufipectus*. Creddin. 31.
- Lubra** n. gen. [Membracidae]. Goding. 84.  
 — *regalis*. Goding. 84.
- LUTEVA** [Reduviidae].  
 — *feana*. Distant. 68.  
 — *malayana*. Distant. 71.
- LYCAMBES** [Coreidae].  
 — *andinola*. Breddin. 35.
- LYCODERES** [Membracidae].  
 — *angustata*. Buckton. 37.  
 — *igniventer*. Buckton. 37.  
 — *torta*. Buckton. 37.
- LYGAEOSOMA** [Lygaeidae].  
 — *orientale*. Distant. 70.
- LYGAUS** [Lygaeidae].  
 — *autolicus*. Distant. 70.  
 — *cohertyi*. Distant. 70.
- LYGUS** [Capsidae].  
 — *abeissinicus*. Reuter. 177.  
 — *biseratensis*. Distant. 71.  
 — *bukitensis*. Distant. 71.  
 — *percerus*. Reuter. 177.  
 — *simonyi*. Reuter. 177.  
 — *stictus*. Reuter. 177.
- Mashneropsis** n. gen. [Cercopidae].  
 — Melichar. 147.  
 — *valida*. Melichar. 147.
- MACHAEROTYPUS** [Membracidae].  
 — *complicatus*. Melichar. 147.  
 — *discretus*. Melichar. 147.  
 — *incultus*. Melichar. 147.
- MACROPES** [Lygaeidae].  
 — *humboldtii*. Distant. 67.  
 — *praecerpheus*. Distant. 70.  
 — *subauratus*. Distant. 70.  
 — *tinctus*. Distant. 70.
- Maerops** n. gen. [Membracidae]. Buckton. 37.  
 — *mixtus*. Buckton. 37.
- Maguva** n. gen. [Membracidae]. Melichar. 147.  
 — *horrida*. Melichar. 147.
- MALVANA** [Coreidae].  
 — *lauta*. Breddin. 35.
- MARGASUS** [Reduviidae].  
 — *luridus*. Distant. 67.  
 — *maurus*. Distant. 69.  
 — *opulentus*. Distant. 69.
- MEGACOELUM** [Capsidae].  
 — *persimile*. Reuter. 177.
- MEGALOSCHEMA** [Membracidae].  
 — *laticornis*. Buckton. 37.

- MELANOCORYPHUS** [Lygaeidae].  
 — *putoni*. Reuter. 176.
- MELUCHA** [Coreidae].  
 — *acutispina*. Breddin. 35.  
 — *ruficornis*. Breddin. 35.
- Meluchopetalops** n. gen. [Coreidae].  
 — Breddin. 35.  
 — *banausus*. Breddin. 35.
- MENACCARUS** [Pentatomidae].  
 — *eremita*. Jakovlev. 115.  
 — *jakovleffi*. Reuter. 176.
- MENDIS** [Reduviidae].  
 — *aemula*. Breddin. 31.
- MENIDA** [Pentatomidae].  
 — *pocila*. Jakovlev. 117.
- Mesargus** n. gen. [Jassidae]. Melichar.  
 — 147.  
 — *asperatus*. Melichar. 147.
- Mesophantia** n. gen. [Fulgoridae].  
 — Melichar. 148.  
 — *palens*. Melichar. 148.
- Mesophylla** n. gen. [Fulgoridae].  
 — Melichar. 148.  
 — *correcta*. Melichar. 148.  
 — *inelinata*. Melichar. 148.
- METHEIRA** [Membracidae].  
 — *cucullata*. Buckton. 37.  
 — *s'nuata*. Buckton. 37.
- METROCORIS** [Hydrometridae].  
 — *aethiops*. Distant. 67.  
 — *illustrarius*. Distant. 70.  
 — *natalensis*. Distant. 67.  
 — *nigrofasciatus*. Distant. 71.
- MICRODEUTERUS** [Pentatomidae].  
 — *javanus*. Breddin. 34.
- Microflata** n. gen. [Fulgoridae].  
 — Melichar. 148.  
 — *stictica*. Melichar. 148.
- Microsanta** n. gen. [Reduviidae].  
 — Breddin. 31.  
 — *aurantiaca*. Breddin. 31.  
 — *sanguinea*. Breddin. 31.
- Microsiphum** n. gen. [Aphidae].  
 — Cholodkovskij. 44.  
 — *ptarmiacae*. Cholodkovskij. 44.
- MICROVELIA** [Hydrometridae].  
 — *repentina*. Distant. 70.  
 — *singalensis*. Kirkaldy. 124.
- Mioscarta** n. gen. [Cercopidae].  
 — Breddin. 7.
- MIRAMBULUS** [Reduviidae].  
 — *morio*. Breddin. 24.
- MOGANNIA** [Cicadidae].  
 — *caesar*. Jacobi. 105.
- MONANTHIA** [Tingidae].  
 — *corniculata*. Jakovlev. 113.  
 — *distans*. Jakovlev. 113.  
 — *longipennis*. Jakovlev. 113.  
 — *taurica*. Jakovlev. 116.
- MONOPHLEBUS** [Coccidae].  
 — *dalbergiae*. Green. 89.  
 — *seebingi*. Green. 89.
- MYIOPHANES** [Reduviidae].  
 — *greeni*. Distant. 70.  
 — *karenia*. Distant. 70.
- MYLOPHANES** [Reduviidae].  
 — *pilipes*. Distant. 67.
- MYNDUS** [Fulgoridae].  
 — *fulvus*. Osborn. 166.  
 — *radicis*. Osborn. 165.
- MYRMES** [Coreidae].  
 — *hirsutus*. Jakovlev. 116.
- MYTILASPIS** [Coccidae].  
 — *mimosarum*. Cockerell. 61.  
 — *townsendiana*. Cockerell. 61.
- MYZUS** [Aphidae].  
 — *phenax*. Cockerell. 50.
- NABIS** [Reduviidae].  
 — *telomi*. Distant. 71.
- NAGUSTA** [Reduviidae].  
 — *albata*. Distant. 69.  
 — *calamobata*. Breddin. 30.  
 — *subflava*. Distant. 69.
- NALATA** [Reduviidae].  
 — *armiventris*. Breddin. 24.
- Narzetes** n. gen. [Reduviidae].  
 — Distant. 67.  
 — *longinus*. Distant. 67.
- Naudarensia** n. gen. [Lygaeidae].  
 — Distant. 70.  
 — *pedata*. Distant. 70.
- NEOTANOSIPHON** [Aphidae].  
 — *rhinanthi*. Schouteden. 190.
- NEMATOPUS** [Coreidae].  
 — *nigriventris*. Breddin. 29.  
 — *rufipes*. Breddin. 29.
- Neocerus** n. gen. [Fulgoridae].  
 — Melichar. 148.  
 — *corniculatus*. Melichar. 148.
- Neodactus** n. gen. [Jassidae].  
 — Melichar. 147.  
 — *acocephaloides*. Melichar. 147.



- CASTOLUS** [Reduviidae].  
 — *nigricentris*. Breddin. 29.
- CASTRUCIUS** n. gen. [Reduviidae].  
 — Distant. 67.  
 — *insignis*. Distant. 67.
- CATADIPSON** n. gen. [Pentatomidae].  
 — Breddin. 19.  
 — *aper*. Breddin. 19.
- CATALAMPUSA** n. gen. [Pentatomidae].  
 — Breddin. 35.  
 — *oenops*. Breddin. 35.
- CATHEDRA** n. gen. [Fulgoridae]. Kirkaldy.  
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- CAZIRA** [Pentatomidae].  
 — *bergrothi*. Breddin. 12.  
 — *horváthi*. Breddin. 12.  
 — *kirkaldyi*. Breddin. 12.  
 — *montandoni*. Breddin. 12.  
 — *reuteri*. Breddin. 12.
- CELANTIA** n. gen. [Tingidae]. Distant.  
 70.
- CENSORINUS** n. gen. [Reduviidae]. Distant.  
 69.  
 — *ferrugineus*. Distant. 69.
- CENTROGONUS** [Reduviidae].  
 — *ducalis*. Distant. 67.  
 — *ochreipennis*. Breddin. 33.
- CENTROTUS** [Membracidae].  
 — *angustulus*. Melichar. 147.  
 — *crinitus*. Buckton. 37.  
 — *curvatus*. Melichar. 147.  
 — *flavolineatus*. Buckton. 37.  
 — *indicatus*. Melichar. 147.  
 — *oreus*. Buckton. 37.  
 — *selenus*. Buckton. 37.
- CENTROTYPEUS** [Membracidae].  
 — *minutus*. Goding. 84.  
 — *occidentalis*. Goding. 84.  
 — *securis*. Buckton. 37.
- CENTRUCHUS** [Membracidae].  
 — *ferrugineus*. Melichar. 147.
- CERAON** n. gen. [Membracidae]. Buckton.  
 37.
- CERATOFULVIUS** n. gen. [Capsidae].  
 Reuter. 176.
- CERELLUS** n. gen. [Reduviidae]. Distant.  
 67.  
 — *nigricans*. Distant. 67.  
 — *typicus*. Distant. 67.
- CERILOCUS** [Reduviidae].  
 — *bicolor*. Distant. 69.  
 — *karachi*. Breddin. 33.  
 — *partus*. Distant. 69.  
 — *pocillus*. Breddin. 33.
- CEROPIASTES** [Coccidae].  
 — *albolineatus* var. *vulcanicus*  
 n. var. Cockerell. 59.  
 — *brachyurus*. Cockerell. 59.  
 — *marmoreus*. Cockerell. 59.  
 — *purpurellus*. Cockerell. 59.  
 — *townsendi* var. *percrassus* n.  
 var. Cockerell. 59.
- CEROPUTO** [Coccidae].  
 — *orthezoides*. Cockerell. 59.  
 — *yuccae* var. *ceanothi* n. var.  
 Cockerell. 59.
- CERYNIA** [Fulgoridae].  
 — *fulgida*. Melichar. 148.  
 — *lincola*. Melichar. 148.  
 — *trilineata*. Melichar. 148.
- CETHERA** [Reduviidae].  
 — *maculipennis*. Breddin. 33.
- CHARAGOCHEILUS** [Capsidae].  
 — *duplicatus*. Reuter. 178.
- CHIASMUS** [Jassidae].  
 — *uzeli*. Melichar. 147.
- CHIONASPIS** [Coccidae].  
 — *decurvata*. Green. 88.
- CHRYSOCORIS** [Pentatomidae].  
 — *auratus* var. *sanguineiventris*  
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 — *aericeomicans*. Breddin. 13.  
 — *viridiventris*. Breddin. 16.
- CHRYSODARECUS** n. gen. [Pentatomidae].  
 Breddin. 35.  
 — *moneta*. Breddin. 35.
- CICADA** [Cicadidae].  
 — *bilaqueata*. Uhler. 209.  
 — *egregia*. Uhler. 209.  
 — *obtusa*. Uhler. 202.  
 — *sublaqueata*. Uhler. 209.
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 — *halophila*. Horváth. 100.  
 — *vaga*. Melichar. 147.
- CIXIUS** [Fulgoridae].  
 — *pilifer*. Melichar. 147.
- CLEONTES** [Reduviidae].  
 — *genitus*. Distant. 69.
- CLEPTIOLA** n. gen. [Reduviidae]. Breddin.  
 23.  
 — *nigrolutea*. Breddin. 23.  
 — *subobscura*. Breddin. 23.
- CLIGENES** [Lygaeidae].  
 — *patricius*. Distant. 70.
- COCURUS** [Coreidae].  
 — *subferrugineus*. Breddin.  
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**COLGAR** [Fulgoridae].

- *centralis*. Melichar. 148.
- *composita*. Melichar. 148.
- *conficita*. Melichar. 148.
- *diversa*. Melichar. 148.
- *furtiva*. Melichar. 148.
- *indicata*. Melichar. 148.
- *punctulata*. Melichar. 148.
- *similata*. Melichar. 148.
- *tripunctata*. Melichar. 148.

**Collinatus** n. gen. [Tingidae]. Distant. 70.

**COLOBASIANTES** [Lygaeidae].

- *albipes*. Breddin. 27.
- *flavidus*. Breddin. 27.
- *fulvicollis*. Breddin. 27.
- *nigrifrons*. Breddin. 27.

**Compsonannus** n. gen. [Capsidae]. Reuter. 175.

— *puncticornis*. Reuter. 175.

**Conogonia** n. gen. [Jassidae]. Breddin. 20.

- *hebetula*. Breddin. 20.
- *placidula*. Breddin. 20.
- *trucidula*. Breddin. 20.

**CORTOSOMA** [Pentatomidae].

- *josuae*. Horváth. 98.
- *mirabilis*. Distant. 67.

**CORANOPSIS** [Reduviidae].

- *rossi*. Distant. 69.

**CORANUS** [Reduviidae].

- *atricapillus*. Distant. 66.

**CORIZUS** [Coreidae].

- *robinsoni*. Distant. 71.

**COSMOCARTA** [Cercopidae].

- *aglaie*. Breddin. 7.
- *briscis*. Breddin. 32.
- *cassandra*. Breddin. 32.
- *chryseis*. Breddin. 32.
- *crocale*. Breddin. 7.
- *deianira*. Breddin. 32.
- *erato*. Breddin. 32.
- *curydice*. Breddin. 32.
- *fruhstorfi*. Jacobi. 105.
- *herate*. Breddin. 32.
- *hecuba*. Breddin. 32.
- *helenia*. Breddin. 32.
- *hippodamia*. Breddin. 32.
- *hyphinos*. Breddin. 7.
- *leucothoe*. Breddin. 32.
- *medea*. Breddin. 32.
- *mnemosyne* n. nom. Breddin. 32.
- *niobe*. Breddin. 32.
- *phiale*. Breddin. 7.
- *philomele*. Breddin. 32.
- *polyxena*. Breddin. 32.

**COSMOCARTA** [Cercopidae].

- *progne*. Breddin. 32.
- *silpha*. Breddin. 32.
- *trichodias*. Jacobi. 105.

**COSMOCLEPTUS** [Reduviidae].

- *rubromarginatus*. Distant. 67.

**COSMOLESTES** [Reduviidae].

- *insignis*. Distant. 69.

**Courtesius** n. gen. [Pyrrhocoridae]. Distant. 70.

— *illuminatus*. Distant. 70.

**Cricetopareis** n. gen. [Reduviidae].

- Breddin. 14.
- *boliviana*. Breddin. 14.

**Critobulus** n. gen. [Lygaeidae]. Distant. 70.

— *insignis*. Distant. 70.

**CROMNA** [Fulgoridae].

- *aspera*. Melichar. 148.
- *frontalis*. Melichar. 148.
- *notata*. Melichar. 148.
- *surrecta*. Melichar. 148.

**Cryptoflata** n. gen. [Fulgoridae]. Melichar. 148.

- *demota*. Melichar. 148.
- *flavopunctata*. Melichar. 148.
- *nigrolimbata*. Melichar. 148.
- *parvula*. Melichar. 148.

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- *liquidambaris*. Kotinsky. 131.

**Ctenomelyntus** n. gen. [Coreidae]. Breddin. 35.

- *brunneiventris*. Breddin. 35.
- *cozalis*. Breddin. 35.

**CUTOCORIS** [Reduviidae].

- *fasciativentris*. Breddin. 11.

**CYARDA** [Fulgoridae].

- *angustatus*. Melichar. 148.

**CYDNOCORIS** [Reduviidae].

- *tabularis*. Distant. 67.

**Gyphodermides** n. gen. [Capsidae]. Reuter. 178.

— *variegata*. Reuter. 178.

**CYRTOMENUS** [Pentatomidae].

- *vestigatus*. Distant. 65.

**CYRTOPELTIS** [Capsidae].

- *tenuis*. Reuter. 178.

**DACTYLOPIUS** [Coccidae].

- *andersoni*. Coleman. 64.
- *dudleyi*. Coleman. 64.

**Taylor, T. H.** Note on the habits of *Chironomus (Orthocladius) sordidellus*. London, Trans. Ent. Soc., **1903**, (521-523). [4219 4231]. 174

**Theobald, F. V.** British Museum (Natural History). First Report on Economic Zoology. London, 1903, (XXIV + 192). 8vo. Includes a classification of animals from the point of view of Economic Zoology by E. Ray Lankester, (XI + XXIV). [0060 4203]. 174a

Two new Australia *Culicidae*. Entomologist, London, **36**, 1903, (154-157). [4227 ic 4231]. 175

New *Culicidae* from the federated Malay States. Entomologist, London, **36**, 1903, (256-259). [4227 eg 4231]. 176

Two new Jamaican *Culicidae*. Entomologist, London, **36**, 1903, (281-283). [4227 hc 4231]. 177

The classification of the *Anophelina*. J. trop. Med., London, **5**, 1902, (181-183). [4231]. 178

Notes on the genus *Stegomyia* (Theobald) and its distribution. J. trop. Med., London, **6**, 1903, (237-239). [4219 4227 4231]. 179

A monograph of the *Culicidae* or Mosquitoes. Vol. III. London, 1903, (XVII + 359, xvii pls.). [4219 4231]. 180

Report on a collection of mosquitoes and other flies from equatorial East Africa and the Nile provinces of Uganda. Reports Sleeping Sickness Comm., No. 3. London (Royal Society), 1903, (33-42, with map). [4227 ff 4219]. 181

v. Ricardo, G.

**Thomann, H.** Die Entwicklung der Dasseliege. (*Hypoderma bov's*). Schweiz. Landw. Zeitschr., Aarau, **30**, 1902, (1100-1104). [4215 4231]. 182

**Thomson, F. W.** Note on the *Culicidae* of Dehra Dun, with a description of a new *Mansonia* which mimics *Anopheles*. J. trop. Med., London, **6**, 1903, (314-315); Notes on this, Giles, *ib.*, (329). [4219 4231]. 183

**Underwood, Wm. Lyman.** A new mosquito. [*Eucorethra underwoodi* Coquillett n. gen. n. sp.] Science, New York, N.Y., (N. Ser.), **18**, 1903, (182-184). [4231]. 184

**Underwood, Wm. Lyman.** Mosquitoes and suggestions for their extermination. Pop. Sci. Mon., New York, N.Y., **63**, 1903, (453-466). [0060 4219]. 185

The mosquito nuisance and how to deal with it; prepared for the Board of Health of Belmont, Mass. Boston (W. B. Clarke Co.), 1903, (15 + [1], with illus.). 22.5 cm. [0060 4219]. 186

**Van der Wulp, F. M.** Diptera. II, III. Biol. Centr.-Amer., London, **1903**, (89-127, 429-489, pls. I-VIII, XIII). 4231]. 187

**Vaney, C. et Conte, A.** Sur un diptère (*Degeeria funebris* Meg.) parasite de l'altise de la vigne (*Haltica ampelophaga* Gner.). Paris, C.-R. Acad. sci., **136**, 1903, (1275-1276). [4219 4231 4819 4831]. 188

v. Conte, A.

**Vassiljev, I. V.** Der Baumweissling (*Aporia crataegi* L.) und dessen Parasiten. (Russ.) Trd. B. entom. Učen. Kom. M. Zeml., St. Peterburg, **III**, No. 8, 1902, (36, mit 16 Fig.). [4215 4219 4419 4615 4619]. 189

**Villeneuve, J.** Contribution au Catalogue des Diptères de France. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (113-119, 146-150). [4231 4227 df]. 190

Contribution au Catalogue des Diptères de Belgique. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (192-195). [4231 4227 dd]. 191

**Wandolleck, Benno.** [Bericht über die wissenschaftl. Leistungen im Gebiet der] Diptera (während d. J. 1899). Arch. Natg., Berlin, **66**, Bd 2, H. 1900, [1903]; D. ent. Zs., Berlin, **1900**, H. 3, 1900, [1903], (821-880). [4203]. 192

**Ward, Henry B[aldwin].** Some points in the development of *Dermatobia hominis*. Lincoln, Stud. Zool. Lab., Univ. Neb., No. **58**, 1903, (10, with pl.). 23 cm. [4215 4231]. 193

**Warren, S. H. v. Kennard, N. S.**

**Wasmann, E[rich].** Die Thorakalanhänge der *Termitoxeniidae*, ihr Bau, ihre imaginale Entwicklung und phylogenetische Bedeutung. Verh. D. zool. Ges., Leipzig, **13**, 1903, (113-120, mit 2 Taf.). [4207 4231]. 194

**Webster, F. M.** Some insects attacking the stems of growing wheat, rye, barley, and oats, with methods of prevention and suppression. [Life histories and descriptions of species of *Isosoma*, *Meromyza* and *Oscinia*]. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., No. 42, 1903, (62). 23 cm. [2419 4231 4631]. 195

**Weschs, W.** Parasite on the Wallaby. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (384-385, with text-fig.). [4219]. 196

— The male organs of the flies *Scatophaga lutaria* and *S. stercoraria*. London, J. Quek Microsc. Cl., 18, 1903, (411-416, pl. XXII). [4207 4231]. 197

**Wimmer, E. v. Escherich, K.**

**Witt, Fritz.** Die Stubenfliege. Nach biologischen Gesichtspunkten betrachtet. Aus d. Schule, Leipzig, 14, 1903, (570-573). [4219 4231]. 198

**Wood, J. H.** *Agathomyia viduella* Zett.: a new British fly. Ent. Mag., London, 39, 1903, (271-272). [4227 de 4231]. 199

## 4203 COMPREHENSIVE AND GENERAL WORKS.

### GENERAL.

**Balfour, A.** Mosquitoes and steamers. J. trop. Med., London, 6, 1903, (253).

**Evans, W.** Diptera in the Edinburgh (Forth) District. Ann. Scot. Nat. Hist., Edinburgh, 1903, (247-249).

**Grimshaw, P. H.** Diptera Scotica. III. The Forth district. L.c. (154-166, 212-226).

**Wandolleck, Benno.** [Bericht über die wissenschaftl. Leistungen im Gebiete der] Diptera (während d. J. 1899]. Arch. Natg., Berlin, 68, Bd 2, H. 2, 1900, [1903]; D. ent. Zs. Berlin, 1900, H. 3, 1900, [1903], (821-880).

### TREATISES.

**Austen, E. E.** A monograph on the Tsetse-flies (genus *Glossina* Westwood) based on the collection in the British Museum. With a chapter on the mouth parts by H. J. Hansen. London (British

Museum), 1903, (IX + 319, 9 pls.). [Reviews], Zoologist, London, 1903; Nature, London, 69, 1903, (123).

### COLLECTIONS, TECHNIQUE.

**Durham, H. E.** Notes on collecting Mosquitoes. J. trop. Med., London, 6, 1903, (297, 298).

### ECONOMICS.

**Annett, H. E., Dutton, J. E. and Elliott, J. H.** Report of the Malaria Expedition to Nigeria. Liverp. Sch. Trop. Medicine. Mem. 3. London (Longmans, Green & Co.), 1902, (68, 2 pls., besides charts and illustrs.).

**Nuttall, G. H. F. and Shipley, A. E.** Studies in relation to malaria. II. (Concl.) The structure and biology of *Anopheles*. J. Hygiene, London, 3, 1903, (166-215, pls. VI-IX).

**Theobald, F. V.** British Museum (Natural History). First report on Economic Zoology. London, 1903, (XXXIV + 192). 8vo. Includes a classification of animals from the point of view of Economic Zoology by E. Ray Lankester, (XI + XXIV).

## 4207 STRUCTURE.

### GENERAL.

**Austen, E. E.** A monograph on the Tsetse-flies (genus *Glossina* Westwood) based on the collection in the British Museum. With a chapter on the mouth parts by H. J. Hansen. London (British Museum), 1903, (IX + 319, 9 pls.). [Reviews], Zoologist, London, 1903; Nature, London, 69, 1903, (123).

**Imms, A. D.** *Clunio bicolor* Kieff.; a marine Chironomid new to the fauna of Great Britain. Liverpool, Proc. biol. soc., 17, 1903, (81-86).

**Nuttall, G. H. F. and Shipley, A. E.** Studies in relation to malaria. II (Concl.). The structure and biology of *Anopheles*. J. Hygiene, London, 3, 1903, (166-215, pls. VI-IX).

**Parker, H. B.** The *Stegomyia fasciata*. Annual report of the Surgeon-general of

the public health and marine-hospital service of the United States for the fiscal year 1902. Washington, D.C., 1903, (452-454).

#### COMPARATIVE ANATOMY.

**Snodgrass, Robert E.** The terminal abdominal segments of female *Tipulidae*. New York, N.Y., J. Ent. Soc., 11, 1903, (177-183, with 2 pls.).

#### APPENDAGES.

**Börner, Carl.** Eine neue im weiblichen Geschlecht flügel- und halterenlose *Sciariidengattung*, nebst Bemerkungen über die Segmentierung des Hinterleibes der Dipteren-Weibchen. (Vorläuf. Mitt.). Zool. Anz., Leipzig, 26, 1903, (495-504, 505-508).

#### DENTITION.

**Harris, W. H.** The dentition of the Diptera. London, J. Quek. Microsc. Cl., 8, 1903, (389-398, pl. XIX).

#### CIRCULATORY AND RESPIRATORY ORGANS.

**Conte, A. et Vaney, C.** Sur la structure de la cellule trachéale de l'Estre et l'origine des formations ergastoplasmiques. Paris, C.-R. Acad. sci., 136, 1903, (561-562).

#### REPRODUCTIVE ORGANS.

**Weesché, W.** The male organs of the flies *Scatophaga lutaria* and *S. mercoraria*. London, J. Quek. Microsc. Cl., 8, 1903, (411-416, pl. XXII).

#### SPECIAL EXTERNAL CHARACTERS.

**Kertész, Kálmán.** Eine neue Familie der Acalyptraten Musciden. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (355-358, Taf. XV).

**Wasmann, E[rich].** Die Thorakalanhänge der *Termitoxeniidae*, ihr Bau, ihre imaginale Entwicklung und phylogenetische Bedeutung. Verh. D. zool. Ges., Leipzig, 13, 1903, (113-120, mit 2 Taf.).

#### 4211 PHYSIOLOGY.

##### PARTHENOGENESIS.

**Lühe, M[ax].** Zur Frage der Parthenogenese bei Culiciden. Allg. Zs. Ent., Neudamm, 8, 1903, (372-373).

##### FUNCTION OF SPECIAL STRUCTURES.

**Berlese, Antonio.** L'accoppiamento della mosca domestica. Riv. patol. veg., Portici, 9, fax. 2°, 1902, (345-357, con fig.).

##### ENVIRONMENTAL EFFECTS.

**Bogdanow, E. A.** Zehn Generationen der Fliegen (*Musca domestica*) in veränderten Lebensbedingungen. (Versuche, angestellt von Frh.N.J.Polevaieff.) Allg. Zs. Ent., Neudamm, 8, 1903, (265-267).

#### 4215 DEVELOPMENT.

##### GENERAL.

**Kieffer, J. J.** *Hypoderma bovis*, [à propos de la question de M. H. Giraudeau]. Feuille jeunes natural., Paris, (sér. 4), 33, 1903, (103).

**Manders, N.** Notes on the *Anopheles* in Ceylon and on the life history of *Anopheles fuliginosus*, Giles. Bombay, J. Nat. Hist. Soc., 15, 1903, (265-278, 2 pls.).

**Morgan, H. A. and Dupree, J. W.** Development and hibernation of mosquitoes. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., No. 40, 1903, (88-92).

**Needham, James G.** Some new life histories of Diptera. Albany Univ., N.Y., Bull. St. Mus., No. 68, 1903, (279-287, with pl.).

**Ruotsalainen, A.** [Zezeffliege- oder Naganakrankheit]. (Finnisch) Luonnon Ystävä, Helsingfors, 1903, 11-12, (282-288).

**Thomann, H.** Die Entwicklung der Dasselffliege (*Hypoderma bovis*). Schweiz. Landw. Zeitschr., Aarau, 30, 1902, (1100-1104).

**Ward, Henry B[aldwin].** Some points in the development of *Dermatobia hominis*. Lincoln, Stud. Zool. Lab., Univ. Neb., No. 53, 1903, (10, with pl.). 23 cm.

## OVIUM.

**Harris, H. F.** The egg of *Psorophora ciliata*. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (232-235).

## METAMORPHOSIS AND LARVAL FORMS.

**Austen, E. E.** [Exhibition of specimens of *Glossina palpalis* Rob. Desv. with pupae]. London, Proc. Zool. Soc., 1903, 2, (316-317).

**Dyar, Harrison G[ray].** Illustrations of the larvae of North American *Culicidae*. 3. New York, N.Y., J. Ent. Soc., 11, 1903, (23-27, with pl.).

**Giles, G. M.** On prepupal changes in the larvae of the *Culicidae*. J. trop. Med., London, 6, 1903, (185-188).

**Smith, John B.** Characters of some mosquito larvae. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (299-303, with pl.).

## POSTEMBRYONIC ONTOGENY.

**Vassiljev, I. V.** Der Baumweissling (*Aporia crataegi* L.) und dessen Parasiten. (Russ.) Trd. B. entom. Učen. Kom. M. Zeml., St. Petersburg, III, No. 8, 1902 (36, mit 16 Fig.).

## 4219 ETHOLOGY.

## GENERAL.

**Girard, A.** *Hypoderma bovis* [Réponse à une question de M. H. Girardeau]. Feuille jeunes natural., Paris, (sér. 4), 33, 1903, (102-103).

**Kieffer, J. J.** *Hypoderma bovis*, [à propos de la question de M. H. Girardeau]. Lc. (103).

**Kolevnikov, G. A.** Observations biologiques sur l'*Anopheles maculipennis* Meig. (*claviger* Fabr.) (Russ.) Rev.

Russ. Ent., Jaroslavl, 3, 1903, (360-371).

**Bonne.** *Hypoderma bovis* [à propos de la question de M. H. Girardeau]. Feuille jeunes natural., Paris, (sér. 4), 33, 1903, (103).

**Späiser, P[aul].** Biologische Notizen über Dipteren. Ent. Jahrb., Leipzig, 12, 1903, (176-181).

**Theobald, F. V.** A monograph of the *Culicidae* or Mosquitoes. Vol. III. London, 1903, (XVII + 359, xvii pls.).

Report on a collection of mosquitoes and other flies from equatorial East Africa and the Nile provinces of Uganda. Reports Sleeping Sickness Comm. No. 3, London (Royal Society), 1903, (33-42, with map).

**Thomson, F. W.** Note on the *Culicidae* of Dehra Dun, with a description of a new *Mansonia* which mimics *Anopheles*. J. trop. Med., London, 6, 1903, (314-315). Notes on this, Giles, *ib.*, (329).

**Witt, Fritz.** Die Stubenfliege. Nach biologischen Gesichtspunkten betrachtet. Aus d. Schule, Leipzig, 14, 1903, (570-573).

## HABITS.

**Beutenmüller, W[illiam].** [Breeding *Culex restuans* from water putrified by dead animal matter]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (269).

**Girschner, E.** Der Dipteren-sammler im Mai, Juni, Juli, August, September und Oktober. Insektenbörse, Leipzig, 20, 1903, (155-156, 181, 211-212, 251-252, 283-284, 315-316).

**Lommel, V.** Bericht über eine Reise im Bezirke Kilwa zur Feststellung des Vorkommens und zur Beobachtung der Lebensgewohnheiten der Tsetsefliege. Ber. landw. Ostafrika, Heidelberg, 1, 1903, (341-350).

**Taylor, T. H.** Notes on the habits of *Chironomus* (*Orthocladia*) *sordidellus*. London, Trans. Ent. Soc., 1903, (375-498).

**Vassiljev, I. V.** Der Baumweissling (*Aporia crataegi* L.) und dessen Parasiten. (Russ.) Trd. B. Entom. Učen. Kom. M. Zeml., St. Petersburg, III, No. 8, 1902, (36, mit 16 Fig.).

## MIGRATION.

**Lucas.** Migration of *Lympetrum fonscolombii*. Entomologist, London, **36**, 1903, (79).

**Smith, John B[ernhardt].** Concerning mosquito migrations. Science, New York, N.Y., (N. Ser.), **18**, 1903, (761-764).

## HIBERNATION.

**Morgan, H. A. and Dupree, J. W.** Development and hibernation of mosquitoes. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., No. **40**, 1903, (88-92).

## SOUND PRODUCTION.

**Harris, W. H.** Remarks on the emission of musical notes and on the hovering habit of *Eristalis tenax*. London, J. Quek. Microsc. Cl., **8**, 1903, (513-520).

## PARASITISM.

**Brues, C. T.** A Dexid parasite [*Melanophora roralis*] of the sow-bug [*Porcellio*] Philadelphia, Pa., Ent. News Acad. Nat. Sci., Amer. Ent. Soc., **14**, 1903, (291).

**Chapman.** Galls of *Asphondylia ulicis*. Entomologist, London, **36**, 1903, (252).

**Dambach.** Die Bienenlaus. Schweiz. Bienenztg, Aarau, **25**, 1902, (447-449).

**Dorr, Emile.** Rareté des lépidoptères. Abondance de parasites. Feuille jeunes natural., Paris, (sér. 4), **34**, 1903, (38).

**Escher-Kündig, J.** (Fliegen deren Larven im menschlichen Körper beobachtet wurden). Schaffhausen, Mitt. Schweiz. Entomol. Ges., **10**, 1903, (446-448).

**Freund, L.** Dermatomyiasis. Verh. Ges. D. Natf., Leipzig, **73**, (1901), II, 2, 1902, (450-451).

**Galli-Valerio, Bruno.** Notes de parasitologie. Centralbl. Bakt., Jena, Abt. 1, **35**, Originale, 1903, (81-91).

**Grünberg, Karl.** Afrikanische Musciden mit parasitisch lebenden Larven. Berlin, SitzBer. Ges. natf. Freunde, **1903**, (400-416, mit 2 Taf.).

**Guitart, J.** Parasitologie pratique. Les parasites de l'intestin et leur recherche dans les matières fécales. Bul. sci. pharm., Paris, **6**, 1902, (152-157, 199-208, av. fig.).

**Jenkinson, F. J. H.** *Verrallia aucta* and its host. Ent. Mag., London, **39**, 1903, (222-223).

**Johnson, H. P.** A new sporozoan parasite of *Anopheles*. J. Med. Res., Boston, Mass., **7**, 1902, (213-219, with pl.).

**Koch, Th. P.** On the gadfly *Hypoderma bovis*. (Danish) Kjöbenhavn, Mdshf. Dysl., **15**, 1903, (129-159).

**Landolt, H[ermann].** Die Kamel-Nasenbremse, *Oestrus maculatus* Wied., im westfäl. zool. Garten zu Münster. Münster, Jahresber. Prov. Ver. Wiss., **30**, (1901/02), 1902, (64-66).

**Lutz, Adolph.** Waldmosquitos und Waldmalaria. Centralbl. Bakt., Jena, Abt. 1, **33**, Originale, 1903, (282-292).

**Neumann, L. G.** Note sur une collection d'ectoparasites recueillis en Abyssinie par M. le baron C. von Erlanger. Arch. parasit., Paris, **6**, 1902, (293-294).

**Nilsen, J. C.** Ueber die Entwicklung von *Bombylius pumilus* Meig., einer Fliege, welche bei *Colletes daviesana* Smith schwarzrotzt. Zool. Jahrb., Jena, Abt. f. Syst., **18**, 1903, (647-658, mit 1 Taf.).

**Perroncito, E.** Importanza patologica delle larve di estro nello stomaco del cavallo. Torino, Giorn. Acc. Med., **65**, 1902, (374-377).

**Schat, P.** Weitere Mitteilungen über Surra [eine durch den Stich einer Fliege verursachte Rinderkrankheit]. (Holländisch) Arch. Java Suiker., Soerabaja, **11**, 1903, (49-67, mit 2 Taf.).

**Tarnani, I. K.** Nouvelles observations sur les oestres. (Russ.) Rev. Russ. Ent., Jaroslavl', **3**, 1903, (101-102).

**Vaney, C. et Conte, A.** Sur un diptère (*Degeeria funebris* Meg.) parasite de l'altise de la vigne (*Haltica ampelophaga* Guer.). Paris, C. R. Acad. sci., **136**, 1903, (1275-1276).

**Wesché, W.** Parasite on the wallaby. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (384-385, with text-fig.).

## UTILITY AND HARMFULNESS.

**Bandi, Ivo.** Gelbfieber und Mosquitos. Eine kritische Studie. *Centralbl. Bakt., Jena, Abt. 1*, **35**, Originale, 1903, (323-326).

——— Yellow fever and mosquitos. *J. trop. Med., London*, **6**, 1903, (254-256).

**Berlese, Antonio.** La questione della mosca olearia. *Bollettino di Entomologia agraria, Padova*, **9**, 1902, (180-184).

**Bruce, D., Nabarro, D. and Greig, E. D. W.** Can the Uganda Tsetse fly (*Glossina palpalis*) carry the *Trypanosoma* found in the sleeping-sickness cases to healthy animals? *London (Royal Soc.), Rep. Sleeping-sickness Comm., No. 4*, (56-64, map).

**Celli, A.** La malaria en Italie durant l'année 1902. *Recherches épidémiologiques et prophylactiques. Arch. ital. biol., Paris*, **37**, 1902, (209-241).

**Daws, Erich.** *Sciara (giraudi aff.)*, ein Schädling junger Kakteenkulturen. *Monatschr. Kakteenk., Neudamm*, **13**, 1903, (20-23).

**Dyé, Léon.** Notes et observations sur les culicides. *Arch. parasit., Paris*, **6**, 1902, (359-376, av. fig.).

**Flicker, M[artin].** Typhus und Fliegen. Vorläufige Mitteilung. *Arch. Hyg., München*, **46**, 1903, (274-283).

**Freyssinge, L. et Neveu-Lemaire, M.** Rôle des moustiques dans la propagation de la filariose et de la fièvre jaune. *Bul. sci. pharm., Paris*, **3**, 1901, (81-92, av. fig.).

**Galli-Valerio, Bruno.** Les nouvelles recherches sur l'action des puces des rats et des souris dans la transmission de la peste bubonique. (*Revue critique.*) *Centralbl. Bakt., Jena, Abt. 1*, **33**, Referate, 1903, (753-757).

**Geddings, H. D.** The fly and mosquito as carriers of disease. *Washington, D.C., Treasury Dept., Pub. Hlth. Mar. Hosp. Ser. Hyg. Lab. Bull.*, **18**, (Supplement), 1903, (10). 23 cm.

**Herrick, G. W.** Some mosquitoes of Mississippi, and how to deal with them. *Agric. Exp. Sta., Mississippi, Agricultural College, Bull.*, No. **74**, 1901, (31, with figs.). 23 cm. [Review], *Washington* (N 2-9053)

*ington, D.C., U. S. Dept. Agric., Off. Exp. Sta. Rec.*, **14**, 1902, (375).

**Howard, L. O.** Concerning the geographic distribution of the yellow fever mosquito [*Stegomyia fasciata*]. *Washington, D.C., Treasury Dept., Pub. Hlth. Mar. Hosp. Serv. Rep. (Supplement)*, **18**, No. **46**, 1903, (7, with map). 23 cm.

——— The carriage of disease by flies. *Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.)*, No. **30**, 1901, (39-45).

——— Mosquitoes as transmitters of disease. [*Anopheles* and *Stegomyia fasciata*.] *The American Monthly Review of Reviews, New York, N.Y.*, **24**, 1901, (192-195).

——— The warfare against mosquitoes. A record of what has been accomplished the last two years—how to exterminate mosquitoes—a practical work for village improvement societies. *Country Life in America, New York, N.Y.*, **3**, 1903, (251-253, with text fig.).

**Laveran, A.** Sur des culicides de Diégo-Suarez (Madagascar) et du Sénégal. *Paris, C.-R. soc. biol.*, **55**, 1903, (149-151).

——— Sur deux Hippobosques du Transvaal susceptibles de propager *Trypanosoma theileri*. *l.c.* (242-243).

**Martini, Erich.** Ueber die Verhütung eines Malaria-Ausbruches zu Wilhelmshaven. *Zs. Hyg., Leipzig*, **43**, 1903, (206-214).

**Measham, Miss C. E. C.** Malaria and the mosquito. *Rochester Nat.*, **3**, 1903, (185-191).

**Nicéville, Lionel de (the late).** Insect pests of cereals and crops. [*Syrphus* sp.] *Calcutta, Ind. Mus. Notes*, **5**, 1903, (134).

**Plettke, Fr.** Ueber das massenhafte Auftreten einer *Simulia* in Nordwestdeutschland. *Aus d. Heimat, Bremerhaven*, **1901**, **02**, 1903, (44-47).

**Poëy, André.** La moustique et la fièvre jaune à la Havane. *Gaz. méd., Paris*, **73**, 1902, (249-251).

**Rivas, D.** Beitrag zur Bekämpfung der *Anopheles*. *Centralbl. Bakt., Jena, Abt. 1*, **33**, Originale, 1903, (235-238).

**Roberts, I. P., Slingerland, M. V. and Stone, J. L.** The Hessian fly [*Cecidomyia destructor*], its ravages in



New York in 1901. Agric. Exp. Sta., New York, (Cornell Station), Ithaca, Bull. No. 194, 1901, (237-260, with 5 figs.); [review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., 13, 1902, (572).

**Robertson, E.** Malaria and mosquitoes. [Culicidae.] Wellington, Trans. N. Zeal. Inst., 35, 1903, (225-239).

**Romanin-Jacur, Giuseppe.** Osservazioni sopra alle Zanzare . . . di Padova . . . in rapporto all'a malaria. Roma, Società studi Malaria, 3, 1902, (256-278, con 1 tav.).

**Ruotsalainen, A.** [Zezeffliege- oder Nagaukrankheit.] (Finnisch) Luonnontietä, Helsingfors, 1903, 11-12, (282-288).

**Schüffner, Wilhelm.** Die Beziehungen der Malariaparasiten zu Mensch und Mücke an der Ostküste Sumatras. Zs. Hyg., Leipzig, 41, 1902, (89-122, mit 4 Taf.).

**Sergent, Edmond et Sergent, Etienne.** Résumé du Rapport sur la campagne antipaludique organisée en 1902 à la gare de l'Alma (Est-Algérien). Ann. Inst. Pasteur, Paris, 17, 1903, (68-73).

**Stephens, J. W. W. and Christophers, S. R.** Reports to the Malaria Committee. Eighth Series. London (Royal Society), 1903, (77).

**Theobald, F. V.** Notes on the genus *Stegomyia* (Theobald) and its distribution. J. Trop. Med., London, 6, 1903, (237-239).

**Underwood, William Lyman.** Mosquitoes and suggestions for their extermination. Pop. Sci. Mon., New York, N.Y., 63, 1903, (453-466).

——— The mosquito nuisance and how to deal with it; prepared for the Board of Health of Belmont, Mass. Boston (W. B. Clarke Co.), 1903, (15 + 1), with illus.). 22.5 cm.

#### 4223 VARIATION AND ETIOLOGY.

**Snodgrass, Robert E.** The terminal abdominal segments of female *Tipulidae*. New York, N.Y., J. Ent. Soc., 11, 1903, (177-183, with 2 pls.).

#### 4227 GEOGRAPHICAL DISTRIBUTION.

##### a THE EARTH AS A WHOLE.

**Bischof, Josef.** Ueber die Dipterenfaunen mit besonderer Berücksichtigung von Prof. G. Strobl's Dipterenfauna von Bosnien, Hercegovina und Dalmatien. Wien, Verh. ZoolBot. Ges., 51, 1901, (115-119).

**Theobald, F. V.** Notes on the genus *Stegomyia* (Theobald) and its distribution. J. Trop. Med., London, 6, 1903, (237-239).

##### d EUROPE.

###### da SCANDINAVIA.

**Strand, Embr.** Norwegian localities for Diptera. (Norw.) Kristiania, Forh. Vid. selsk., 1903, No. 3, (II).

###### db RUSSIA.

**Norman, A. M.** Notes on the Natural History of East Finmark. [Diptera.] Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (166-173).

###### dd HOLLAND AND BELGIUM.

**Jacobs, J. C.** Diptères de la Belgique. Bruxelles, Ann. Soc. ent. Belgique, 45, 1901, (324-333); 47, 1903, (356-357).

**Villeneuve, J.** Contribution au Catalogue des Diptères de Belgique. Feuille jeunes natural., Paris, (sér. 4), 33, 1903, (192-195).

###### de BRITISH ISLANDS.

**Floomfield, E. N.** Norfolk Diptera. Norwich, Trans. Nat. Soc., 7, 1903, (541-552).

**Evans, W.** Diptera in the Edinburgh (Forth) District. Ann. Scot. Nat. Hist., Edinburgh, 1903, (247-249).

**Grimshaw, P. H.** Diptera Scotica. III. The Forth district. l.c. (154-166, 212-226).

**Imms, A. D.** *Clunio bicolor* Kieff; a marine chironomid new to the fauna of Great Britain. Liverpool, Proc. biol. Soc., 17, 1903, (81-86).

**Kennard, A. S. and Warren, S. H.** On a section of the Thames Alluvium in Bermondsay. *Geol. Mag.*, London, [4], **10**, 1903, (456-460, 525).

**Sharp, D.** *Chamaesyphus lusitanicus* Mik., a new British Syrphid fly. *Ent. Mag.*, London, **39**, 1903, (197).

——— *Pachygaster minutissimus* Zett., a Stratiomyid fly new to Britain, with notes on *P. tarsalis*. *l.c.* (221-222).

——— *Phortica variegata* Fall., a Drosophilid fly new to Britain. *l.c.* (248-249).

**Wood, J. H.** *Agathomyia viduella* Zett.; a new British fly. *l.c.* (271-272).

#### df FRANCE.

**Sergent, Edmond et Sergent, Etienne.** Observations sur les Anophèles de la banlieue de Paris. *Ann. Inst. Pasteur*, Paris, **16**, 1902, (940-946).

**Villeneuve, J.** Contribution au Catalogue des Diptères de France. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (113-119, 146-150).

#### di SWITZERLAND.

**Galli-Valerio, Bruno et Rochaz-de Jongh, Jeanne.** Sur la présence de *Moehlonyx relutinus* Rathe dans le canton de Vaud. *Lausanne, Bull. Soc. Sci. Nat.*, (sér. 4), **39**, 1903, (453-460, av. 1 pl.); *Arch. Sci. Phys.*, Genève, (sér. 4), **15**, 1903, (226-227).

#### c ASIA.

**Mariatt, C[harles] I[ester].** Collecting notes on mosquitoes in oriental countries. Washington, D.C., *Proc. Ent. Soc.*, **5**, 1903, (111-123).

#### ed COCHIN CHINA.

**Laveran, A.** Sur les culicidés de Cochinchine. Paris, *C. R. soc. biol.*, **55**, 1903, (414-416).

#### ef BRITISH INDIA.

**Aitken, E. H.** Notes of a tour in the North Canara district of India in search of mosquitoes. *J. trop. Med.*, London, **5**, 1903, (325, 326, 341, 342).

(N 2-9053)

#### eg MALAY PENINSULA.

**Kertész, Kálmán.** Die *Pipunculus*-Arten Süd-Asiens und Neu-Guineas. Budapest, *Ann. Hist.-Nat. Mus. Nat. Hung.*, **1**, 1903, (463-471).

**Ludlow, C. S.** Some Philippine mosquitoes. New York, N.Y., *J. Ent. Soc.*, **11**, 1903, (137-144).

**Spelser, P.** Diptera Pupipara. Fascic. Malay. Zool., **1**, (117-126).

**Theobald, F. V.** New *Culicidae* from the federated Malay States. *Entomologist*, London, **36**, 1903, (256-259).

#### f AFRICA.

##### fa MEDITERRANEAN STATES.

**Sergent, Edmond et Sergent, Etienne.** Observations sur les moustiques des environs d'Alger. *Ann. Inst. Pasteur*, Paris, **17**, 1903, (60-67, av. fig.).

##### fb NORTH EAST AFRICA.

**Becker, Th[eodor].** Aegyptische Dipteren, gesammelt und beschrieben. [In: Berlin, *Mitt. zool. Mus.*, **2**, H. 2. 3.] Berlin, 1902-1903, (195, mit 5 Taf.).

##### fd WEST AFRICA.

**Annett, H. E., Dutton, J. E. and Elliott, J. H.** Report of the Malaria Expeditions to Nigeria. *Liverp. Sch. Trop. Medicine, Mem.* 3. London (Longmans, Green & Co.), (2 pls., besides charts and illustrs.).

##### ff EAST AFRICA.

**Ricardo, Gertrude and Theobald, F. V.** Diptera. [*Culicidae* by Theobald.] *Nat. Hist. Sokotra*, (359-378, pl. XXII).

**Theobald, F. V.** Report on a collection of mosquitoes and other flies from equatorial East Africa and the Nile provinces of Uganda. *Reports Sleeping Sickness Comm.*, No. 3. London (Royal Society), 1903, (33-42, with map).

##### fg SOUTH AFRICA.

**Laveran, A.** Sur deux Hippoboscques du Transvaal susceptibles de propager *Trypanosoma theileri*. Paris, *C. R. soc. biol.*, **55**, 1903, (242-243).

## fh MADAGASCAR.

**Laveran, A.** Sur des culicides de Diégo-Suarez (Madagascar) et du Sénégal. Paris, C. R. soc. biol., **55**, 1903, (149-151).

## g NORTH AMERICA.

**Brues, Charles Thomas.** A monograph of the North American *Phoridae* [with bibliography]. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (331-404, with pl.).

**Hine, James S.** *Tabanidae* of Ohio with a catalogue and bibliography of the species from America north of Mexico. Columbus, Ohio, Acad. Sci. Sp. Paprs., No. **5**, 1903; [reprint], Columbus, Ohio, Univ. Bull., (Ser. 7), No. **19**, (1-57, with pl.). 23.2 cm.

**Kellogg, Vernon L[ym]an.** The net-winged midges (*Blepharoceridae*) of North America [with bibliography]. San Francisco, Proc. Cal. Acad. Sci., (Ser. 3), **3**, 1903, (187-232, with 5 pls.). Separate. 25.5 cm.

——— The net-winged midges (*Blepharoceridae*) of North America [with bibliography]. [Reprint from the Proceedings of the California Academy of Sciences, (Ser. 3), Zoology, 3]. Stanford University, Cal., Leland Stanford Jr. Univ. Hopkins Seaside Lab., Cont. Biol., **30**, 1903, (21+187-232, with text-fig. and pl.). Separate. 25.5 cm.

## gg NORTH EASTERN UNITED STATES.

**Dyar, Harrison G[ray].** Notes on mosquitoes in New Hampshire. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (140-148, with pl.).

**Hine, James S.** *Tabanidae* of Ohio with a catalogue and bibliography of the species from America north of Mexico. Columbus, Ohio, Acad. Sci. Sp. Paprs. No. **5**, 1903; [Reprint], Columbus, Ohio, Univ. Bull., (Ser. 7), No. **19**, (1-57, with pl.). 23.2 cm.

**Johannsen, O. A.** Notes on some Adirondack Diptera collected by Messrs. MacGillivray and Houghton [n. sp. of *Sciophilila*]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (14-17).

——— Aquatic nematoceros Diptera [of New York]. Albany Univ.,

N.Y., Bull. St. Mus., No. **68**, 1903, (328-441, with pl.). Separate, (328-448, with pl.). 22.8 cm.

**Jordan, Edwin O.** Notes on the occurrence and habitat of *Anopheles punctipennis* and *Anopheles maculipennis* in the valley of the Androscoggin. J. Med. Res., Boston, Mass., **7**, 1902, (1-24, with pl.).

**MacGillivray, Alex[ander] D[yer] and Houghton, C. O.** A list of insects taken in the Adirondack mountains, New York —2. [Diptera]. l.c. (12-13).

**Smith, J. B.** The salt-marsh mosquito (*Culex sollicitans*). Agric. Exp. Sta., New Jersey, New Brunswick, Spec. Bull. T., 1902, (10, with 2 figs.). 23 cm. [Review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta., Rec., **14**, 1902, (273).

## gh SOUTH EASTERN UNITED STATES.

**Herriek, G. W.** Some mosquitoes of Mississippi, and how to deal with them. Agric. Exp. Sta., Mississippi, Agricultural College, Bull., No. **74**, 1901, (31, with 15 figs.). 23 cm. [Review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta., Rec., **14**, 1902, (375).

## gi WESTERN UNITED STATES.

**Coquillett, D. W.** Some insects of the Hudsonian zone in New Mexico. Diptera. Psyche, Cambridge, Mass., **9**, 1901, (149-150).

**Johnson, C. W.** Diptera of Beulah, New Mexico. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (101-106).

**Skinner, Henry.** Lepidoptera of Beulah, New Mexico. l.c. 1902, (36-38).

## h CENTRAL AND SOUTH AMERICA.

**Kertész, Kálmán.** Eine neue Familie der Acalyptraten Musciden. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., **1**, 1903, (355-358, Taf. XV).

**Neveu-Lemaire, M.** Einige neue südamerikanische Ceria-Arten. Arch. parasit., Paris, **6**, 1902, (433-440).

——— Beitrag zur Kenntniss der Heteroneuriden. l.c. (566-573).

# hc WEST INDIAN ISLANDS.

**Theobald, F. V.** Two new Jamaican *Culicidae*. Entomologist, London, **36**, 1903, (281-283).

# hul GUIANA.

**Neveu-Lemaire, M.** Description de quelques moustiques de la Guyane. Arch. parasit., Paris, **6**, 1902, (5-25, av. 15 fig.).

# i AUSTRALASIA.

# ia NEW GUINEA.

**Kertész, Kálmán.** Die *Pipunculus*-Arten Süd-Asiens und Neu-Guineas. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., **1**, 1903, (465-471).

# ic AUSTRALIA AS A WHOLE.

**Coquillett, Daniel W.** A new Ephrydrid [*Hydrellia tritici* n. sp.] from Australia. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (324).

**Theobald, F. V.** Two new Australian *Culicids*. Entomologist, London, **31**, 1903, (154-157).

## 4231 TAXONOMY AND SYSTEMATIC.

### GENERAL.

**Becker, T.** Die Typen der v. Roser'schen Dipteren-Sammlung in Stuttgart. Stuttgart, Jahreshefte Ver. Natk., **59**, 1903, (52-66).

**Aegyptische Dipteren, gesammelt und beschrieben.** [In: Berlin, Mitt. zool. Mus., **2**, H. 2. 3.] Berlin, 1902-1903, (195, mit 5 Taf.). [4227 fb].

**Coquillett, D. W.** Some insects of the Hudsonian zone in New Mexico. Diptera. Psyche, Cambridge, Mass., **9**, 1901, (149-150).

**Flicker, M.** Typhus und Fliegen. Vorläufige Mitteilung. Arch. Hyg., München, **46**, 1903, (274-283).

**Galli-Valerio, Bruno.** Les nouvelles recherches sur l'action des puces des rats et des souris dans la transmission

de la peste bubonique. (Revue critique.) Centralbl. Bakt., Jena, Abt. 1, **33**, Referate, 1903, (753-757).

**Gillanders, A. T.** Notes on miscellaneous arboreal insects. Manchester, Trans. Microsc. Soc., **1902**, (72-80, pl. I).

**Harris, W. H.** The dentition of the Diptera. London, J. Quek. Microsc. Cl., **8**, 1903, (389-398, pl. XIX).

**Hine, J. S.** New or little known Diptera. Ohio Nat., Columbus, Ohio, **2**, 1902, (228-230).

**Jacobs, J. C.** Diptères de la Belgique. Bruxelles, Ann. soc. ent. Belgique, **45**, 1901, (324-333); **47**, 1903, (356-357).

**Johannsen, O. A.** Aquatic nematocerus Diptera [of New York]. Albany Univ., N.Y., Bull. St. Mus., No. **68**, 1903, (328-441, with pl.). Separate. (328-448, with pl.). 22.8 cm.

**Johnson, C. W.** Diptera of Beulah, New Mexico. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (101-106).

**Kertész, K.** Catalogus Dipteriorum hucusque descriptorum. Vol. I: *Sciaridae*, *Mycetophilidae*, *Bibionidae*, *Chironomidae*, *Stenozenidae*, *Culicidae*, *Ptychopteridae*, *Dixidae*, *Blepharoceridae*, *Simuliidae*, *Orphnephilidae*, *Psychodidae*, *Rhyphidae*. Leipzig (W. Engelmann), 1902, (III + 339). 23 cm. 15 M.

**Melander, A. L. and Bruen, C. T.** Guests and parasites of the burrowing bee *Halictus*. [nn. spp. of Diptera and Hymenoptera]. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **5**, 1903, (1-27, with text fig.).

**Needham, J. G.** Some new life histories of Diptera. Albany Univ., N.Y., Bull. St. Mus., No. **68**, 1903, (279-287, with pl.).

**Norman, A. M.** [Diptera in.] Notes on the Natural History of East Finmark (contd.). Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (171-173).

**Schnabl, I.** Ueber den variablen Werth eines und desselben Characters in verschiedenen systematischen Kategorien; auch manche dipterologische „pia desideria“. St. Petersburg, Hor. Soc. Ent. Ross., **36**, 1903, (164-175, mit 8 Fig.).

**Sergent, E. et Sergent, E.** Observations sur les moustiques des environs d'Alger. Ann. Inst. Pasteur, Paris, **17**, 1903, (60-67, av. fig.).

**Stebbing, E. P.** Tachinid larva found in teak in Nilumbur, note on its occurrence. Departmental Notes on Insects that affect Forestry No. 2. Calcutta, 1903, (293). 25 cm.

**Villeneuve, J.** Contribution au Catalogue des Diptères de France. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (113-119, 146-150).

——— Contribution au Catalogue des Diptères de Belgique. *l.c.* (192-195).

#### CECIDOMYIDAE.

*Cecidomyia destructor*. **Roberts, I. P., Slingerland, M. V. and Stone, J. L.** Agric. Exp. Sta., New York, (Cornell station), Ithaca, Bull., No. **194**, 1901, (237-260, with 5 figs.). [Review]. Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., **13**, 1902, (572).

*Diplosia*, parasites. **Eckel, L. S.** Philadelphia, Pa., Ent. News Acad. Nat. Sci., Amer. Ent. Soc., **14**, 1903, (279-284).

*Kiefferia* n. gen., *K. musae* n. sp. **Kunstler, J. et Chaine, J.** Arcachon, soc. sci. station zool., **6**, 1902, (113-118).

——— *musae* Kunstler et Chaine, 1902, renamed *Micropocus musae*. **Enderlein, G.** Zool. Jahrb., Jena, Abt. f. Syst., **19**, 1903, (288-292).

#### MYCETOPHILIDAE.

*Ap'anogyna* n. gen. (~ *Sciara*), *A. mikrothorax*, *A. schillei* nn. spp. **Börner, C.** Zool. Anz., Leipzig, **26**, 1903, (505-507).

*DasySciara* n. gen., *D. pedestris* n. sp. **Kieffer, J. J.** Bruxelles, Ann. Soc. scient., **27**, 1903, (199-200).

*Myosciara* n. gen., *M. brevipalpis* n. sp. **Kieffer, J. J.** *l.c.* (203).

*Peyrimhoffia* n. gen., *P. brachyptera*, *P. aptera* nn. spp. **Kieffer, J. J.** *l.c.* (198-200).

*Sciara (giraudi aff.)*, ein Schädling junger Kakteenkulturen. **Dams, F.** Monatschr. Kakteenk., Neudamm, **13**, 1903, (20-23).

——— *kairensis* n. sp. Egypt. **Becker, T.** Berlin, Mitt. zool. Mus., **2**, H.2, (78).

——— *membranigera* n. sp. **Kieffer, J. J.** Bruxelles, Ann. Soc. scient., **27**, 1903, (201).

——— *militaris*. **Glaser, E.** Aus d. Heimat, Stuttgart, **15**, 1902, (126-127).

*Sciophila pulchra* n. sp. **Johannsen, O. A.** Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (14-17).

——— *pulchra* Johannsen nom. nud. New York. **MacGillivray, A. D. and Houghton, C. O.** *l.c.* (12-13).

#### BLEPHAROCERIDAE.

##### GENERAL.

**Kellogg, V. L.** The net-winged midges (*Blepharoceridae*) of North America [with bibliography]. [Reprint from the Proceedings of the California Academy of Sciences, Ser. 3, Zoology, 3.] Stanford University, Cal., Leland Stanford jr. Univ. Hopkins Seaside Lab., Cont. Biol., **30**, 1903, (21 + 187-232, with text fig. and pl.). Separate 25.5 cm.

——— The net-winged midges (*Blepharoceridae*) of North America [with bibliography]. San Francisco, Proc. Cal. Acad. Sci., (Ser. 3), **3**, 1903, (187-232, with 5 pls.).

##### SPECIAL.

*Bibiocephala comatoki* n. sp. N. America. **Kellogg, V. L.** San Francisco, Proc. Cal. Acad. Sci., (Ser. 3), **3**, 1903, (187-232).

*Blepharocera* nn. spp. N. America. **Kellogg, V. L.** *l.c.* (189-191).

*Hapalothrix lugubris* H. Lw. **Harling, G.** Zs. Hymenopter, Teschendorf, **3**, 1903, (208).

## CULICIDAE.

## GENERAL.

**Aitken, E. H.** Notes of a tour in the North Canara District of India in search of mosquitoes. *J. trop. Med.*, London, **5**, 1903, (325, 326, 341, 342).

**Bordi, C.** . . . *Culicidae*: contribuzione alla [loro] sistematica, con speciale riguardo alla diffusione della malaria umana. Roma, Rend. Acc. Lincei, (Ser. 5), **11**, (2<sup>a</sup> Sem.), 1902, (318-324).

**Dyar, H. G.** Illustrations of the larvæ of North American *Culicidae*, **3**. New York, N.Y., *J. Ent. Soc.*, **11**, 1903, (23-27, with pl.).

——— Notes on mosquitoes in New Hampshire. Washington, D.C., *Proc. Ent. Soc.*, **5**, 1903, (140-148, with pl.).

**Dyé, L.** Notes et observations sur les culicides. *Arch. parasit.*, Paris, **6**, 1902, (359-376, av. fig.).

**Freyssinge, L. et Neveu-Lemaire, M.** Rôle des moustiques dans la propagation de la filariose et de la fièvre jaune. *Bul. sci. pharm.*, Paris, **3**, 1901, (81-92, av. fig.).

**Herrick, G. W.** Some mosquitoes of Mississippi, and how to deal with them. *Agric. Exp. Sta.*, Mississippi. Agricultural College, Bull., No. **74**, 1901, (31, with 15 figs.). 23 cm. [Review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta., Rec., **14**, 1902, (375).

**Laveran, A.** Sur des culicides de Diégo-Suarez (Madagascar) et du Sénégal. Paris, C. R. soc. biol., **55**, 1903 (149-151).

——— Sur les culicides de Cochinchine. *l.c.* (414-416).

**Ludlow, C. S.** Some Philippine mosquitoes. New York, N.Y., *J. Ent. Soc.*, **11**, 1903, (137-144).

**Mariatt, C. L.** Collecting notes on mosquitoes in oriental countries. Washington, D.C., *Proc. Ent. Soc.*, **5**, 1903, (111-123).

**Martini, E.** Ueber die Verhütung eines Malaria-Ausbruches zu Wilhelmshaven. *Zs. Hyg.*, Leipzig, **43**, 1903, (206-214).

**Morgan, H. A. and Dupree, J. W.** Development and hibernation of mosquitoes. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., No. **40**, 1903, (83-92).

**Neveu-Lemaire, M.** Description de quelques moustiques de la Guyane. *Arch. parasit.*, Paris, **6**, 1902, (5-25, av. 15 fig.).

**Poëy, A.** La moustique et la fièvre jaune à la Havane. *Gaz. med.*, Paris, **73**, 1902, (249-251).

**Ricardo, G. and Theobald, F. V.** Diptera. [*Culicidae* by Theobald.] *Nat. Hist. Sokotra*, (359-378, pl. XXII).

**Romanin-Jacur, G.** Osservazioni sopra alle zanzare e sopra ad alcune condizioni locali della città di Padova e dei suoi immediati dintorni in rapporto alla malaria. Roma, Atti Società studi malaria, **3**, 1902, (256-278, con 1 tav.).

**Sergeant, E. et Sergeant, E.** Observations sur les Anophèles de la banlieue de Paris. *Ann. Inst. Pasteur*, Paris, **16**, 1902, (940-946).

**Smith, J. B.** Characters of some mosquito larvae. Philadelphia, Pa., *Ent. News Acad. Nat. Sci.*, **13**, 1902, (299-303, with pl.).

——— Concerning mosquito migrations. Science, New York, N.Y., (N. Ser.), **18**, (761-764).

**Theobald, F. V.** The classification of the *Anophelina*. *J. trop. Med.*, **6**, London, 1902, (181-183).

**Thomson, F. W.** Note on the *Culicidae* of Dehra Dun. *l.c.* 1903, (314-315); Notes on this, Giles, *ib.*, (329).

## SPECIAL.

*Acartomyia* n. gen., *A. zammitii* n. sp. **Theobald, F. V.** *Mon. Culicidae*, London, **3**, 1903, (251-252).

*Aedeomyia americana* n. sp. Guyane. **Neveu Lemaire, M.** *Arch. parasit.*, Paris, **6**, 1902, (5-25, av. 15 fig.).

*Aedimorphus* n. gen. **Theobald, F. V.** *Mon. Culicidae*, London, **3**, 1903, (190).

*Aldrichia* n. gen., *A. error* n. sp. **Theobald, F. V.** *l.c.* Appendix, 1903, (353-354).

- Anopheles* nn. spp. Egypt. **Becker**, T. Berlin, Mitt. zool. Mus., 2, H 2, (68-69).
- habits. **Geddings**, H. D. Washington, D.C., Treasury Dept., Pub. Hlth. Mar. Hosp. Ser. Hyg. Lab. Bull. Rep., 18, (Supplement), 1903, (10). 23 cm.
- habits. **Howard**, I. O. The American Monthly Review of Reviews, New York, N.Y., 24, 1901, (192-195).
- structure and biology. **Nuttall**, G. H. F. J. Hygiene, London, 3, 1903, (166-215, pls. VI-IX).
- Bekämpfung. **Rivas**, D. Centralbl. Bakt., Jena, Abt. 1, 33, Originale, 1903, (235-238).
- Beziehungen der Malaria-parasiten zu Mensch und Mücke an der Ostküste Sumatras. **Schöffner**, W. Zs. Hyg., Leipzig, 41, 1902, (89-122, mit 4 Taf.).
- nn. spp. **Theobald**, F. V. l.c. Mon. Culicidae, London, 3, 1903, (21-23).
- *aitheni*, Theob., larva, pupa and imago described *A. barbirostris*, van der Wulp, *A. culifacies*, Giles, and *A. fluviatilis*, James, notes; *A. jamesi* Theob., notes; *A. karwari*, Theob., imago described; *A. leucophyrus*, Donitz, var. *elegans*, Theob. and *A. nigerrimus* Giles, notes; *A. punctulatus*, Donitz, imago described; *A. rossi*, Giles, notes, all from Karwar. **Cogill**, H. The *Anopheles* of Karwar (North Kanara). Bombay, J. Nat. Hist. Soc., 15, 1903, (327-336, with 1 pl.).
- *culiciformis* n. sp. Karwar. **Cogill**, H. The *Anopheles* of Karwar (North Kanara). Bombay, J. Nat. Hist. Soc., 15, 1903, (327-336, 1 pl.).
- *fuliginosus*, life history. **Manders**, N. Bombay, J. Nat. Hist. Soc., 15, 1903, (265-278, 2 pls.).
- *punctipennis* and *A. maculipennis*, occurrence and habitat in the valley of the Androscoggin [Maine]. **Jordan**, E. O. J. Med. Res., Boston, Mass., 7, 1902, (1-24, with 1 pl.).
- Arribalzagia* n. gen., *A. maculipes* n. sp. **Theobald**, F. V. Mon. Culicidae, London, 3, 1903, (13, 81, 83).
- Celia* n. gen. **Theobald**, F. V. l.c. (107); J. trop. Med., London, 5, 1903, (181).
- Christya* n. gen., *C. implexa* n. sp. Equatorial East Africa. **Theobald**, F. V. Rep. Sleeping Sickness Comm. No. 3, London (Royal Society), 1903, (34-35).
- Corethra albipes* n. sp. New York. **Johannsen**, O. A. Albany Univ., N.Y., Bull. St. Mus., No. 68, 1903, (398).
- *brakeleyi* n. sp. **Coquillett**, D. W. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (84-85).
- *ceratopogones* n. sp. **Theobald**, F. V. Mon. Culicidae, London, 3, 1903, (338-339).
- Culex* nn. spp. Philippines. **Ludlow**, C. S. New York, N.Y., J. Ent. Soc., 11, 1903, (141-142).
- nn. spp. **Theobald**, F. V. Mon. Culicidae, London, 3, 1903, (159-230).
- *atropalpus* Coquillett. **Dyar**, H. G. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (180-182).
- *columbacensis*. **Aigner-Abad**, L. von. Allg. Zs. Ent., Neudamm, 8, 1903, (93-96, 124-127).
- *longefurcatus* n. sp. Egypt. **Becker**, T. Berlin, Mitt. Zool. Mus., 2, H 2, (68).
- *mathisi* n. sp. Guyane. **Neveu-Lemaire**, M. Arch. parasit., Paris, 6, 1902, (5-25, av. 15 fig.).
- *pipiens* in Asia, *C. singalense* n. sp. **Marlatt**, C. L. Washington, D.C., Proc. Ent. Soc., 5, 1903, (111-123).
- *restuans* Theobald. **Dyar**, H. G. Philadelphia, Pa., Ent. News Acad. Nat. Sci., Amer. Ent. Soc., 14, 1903, (41-42).
- food habits of larva. **Beutenmüller**, W. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (269).
- serratus*, early stages. **Smith**, J. B. l.c., 14, 1903, (309-311, with 1 pl.).
- *solicitans*. New Jersey. **Smith**, J. B. Agric. Exp. Sta., New Jersey, New Brunswick, Spec. Bull. T., 1902, (10, with 2 figs.). 23 cm. [Review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta., Rec., 14, 1902, (273).
- *tortilis* n. sp. Jamaica. **Theobald**, F. V. Entomologist, London, 36, 1903, (281-282).

*Cyclolepteron mediopunctatus* n. sp. **Theobald**, F. V. Mon. Culicidae, London, **3**, 1903, (60).

*Dendromyia* n. gen., *D. ulocoma* n. sp. **Theobald**, F. V. l.c. (313-317).

*Desvoidea fusca* n. sp. **Theobald**, F. V. l.c. (135).

*Eucorethra* n. gen., *E. underwoodi* n. sp. **Coquillett** in **Underwood**, W. L. Science, New York, N.Y., (N. Ser.), **18**, 1903, (182-184).

*Ficalbia* n. gen., *F. simplex* n. sp. **Theobald**, F. V. Mon. Culicidae, London, **3**, 1903, (296-297).

*Finlaya* n. gen., *F. poicilia* n. sp. **Theobald**, F. V. l.c. (281-283).

*Gilesia* n. gen., *G. aculeata* n. sp. **Theobald**, F. V. l.c. (233).

*Goeldia* n. gen., *G. fluvialis* n. sp. **Theobald**, F. V. l.c. (330-331).

*Grabhamia* n. gen., *G. pygmaea*, *G. durbanensis*, *G. ambiguus*, nn. spp. *G. spencerii* var. *idahoensis* n. var. **Theobald**, F. V. l.c. (243-250).

*Grassia* n. gen. **Theobald**, F. V. J. Trop. Med., London, **6**, 1903, (237-239).

*Haemagogus albomaculatus* n. sp. **Theobald**, F. V. Mon. Culicidae, London, **3**, 1903, (308).

*equinus* n. sp. Jamaica. **Theobald**, F. V. Entomologist, London, **36**, 1903, (282-283).

*Heptaphlebomyia* n. gen., *H. simplex* n. sp. **Theobald**, F. V. Mon. Culicidae, London, **3**, 1903, (337).

*Howardia* n. gen. **Theobald**, F. V. J. Trop. Med., London, **5**, 1902, (181).

*Howardina* n. gen., *H. greenii* n. sp. **Theobald**, F. V. Mon. Culicidae, London, **3**, 1903, (287-289).

*Lasioconops* n. gen., *L. poecilipes* n. sp. **Theobald**, F. V. l.c. (236-237).

*Laverania* n. gen. **Theobald**, F. V. J. Trop. Med., London, **5**, 1902, (181).

*Lutzia* n. gen. **Theobald**, F. V. Mon. Culicidae, London, **3**, 1903, (155).

*Macleaya* n. gen., *M. tremula* n. sp. Queensland. **Theobald**, F. V. Entomologist, London, **36**, 1903, (154-156).

*Mansonia anopheloides* n. sp. **Thomson**, F. W. J. Trop. Med., London, **6**, 1903, (314-315).

*major* n. sp. **Theobald**, F. V. Mon. Culicidae, London, **3**, 1903, (270).

*Melanoconion* n. gen., *M. luteopleurus*, *M. indecorabilis*, *M. spissipes* nn. spp. **Theobald**, F. V. l.c. (238-242).

*Mimomyia* n. gen., *M. splendens* n. sp. **Theobald**, F. V. l.c. (304-306).

*Myzomyia*, old and new species. **Theobald**, F. V. l.c. (24-51).

*Myzorrhynchus*, old and new species. **Theobald**, F. V. l.c. (87-91).

*Mochlonyx relutinus*, présence dans le canton de Vaud. **Galli-Valerio**, B. et **Rochas-de Jongh**, J. Lausanne, Bull. Soc. Sci. Nat., (sér. 4), **39**, 1903, (453-460, 1 pl.); Arch. Sci. Phys., Genève, (sér. 4), **15**, 1903, (226-227).

*Nyssorrhynchus*, old and new species. **Theobald**, F. V. Mon. Culicidae, London, **3**, 1903, (99-107).

*nitipes* n. sp. Malay. **Theobald**, F. V. Entomologist, London, **36**, 1903, (258-259).

*Pelorempis* n. gen., *P. americana* n. sp. New York. **Johannsen**, O. A. Albany Univ., N.Y., Bull. St. Mus., No. **68**, 1903, (402-403).

*Phoniomyia* n. gen. **Theobald**, F. V. Mon. Culicidae, London, **3**, 1903, (311).

*Psorophora ciliata*, eggs. **Harris**, H. F. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (232-233).

*Pyretophorus*, old and new species. **Theobald**, F. V. Mon. Culicidae, London, **3**, 1903, (66-77).

*Rossia* n. gen. **Theobald**, F. V. J. Trop. Med., London, **5**, 1902, (181).

*Runchomyia* n. gen., *R. frontosa* n. sp. **Theobald**, F. V. Mon. Culicidae, London, **3**, 1903, (319).

*Sabethes* nn. spp. Brazil. **Theobald**, F. V. l.c. (323).

*Sabethoides* n. gen., *S. confusus* n. sp. **Theobald**, F. V. l.c. (328-330).

*Skusea* n. gen., *S. funerea*, *S. multiplex* nn. spp. **Theobald**, F. V. l.c. (291-293).

*diurna* n. sp. Malay. **Theobald**, F. V. Entomologist, London, **36**, 1903, (259).



*Stegomyia*, habits. **Geddings**, H. D. Washington, D.C., Treasury Dept., Pub. Hlth. Mar. Hosp. Ser. Hyg. Lab. Bull. Rep., **18**, (Supplement), 1903 (10). 23 cm.

——— nn. spp. Philippines. **Ludlow**, C. S. New York, N.Y., J. Ent. Soc., **11**, 1903, (139).

——— (Theobald), notes on the genus and its distribution. **Theobald**, F. V. J. Trop. Med., London, **6**, 1903, (237-239).

——— old and new species. **Theobald**, F. V. Mon. Culicidae, London, **3**, 1903, (139-147).

——— *fasciata*, Gelbfieber. Eine kritische Studie. **Bandi**, I. Centralbl. Bakt., Jena, Abt. 1, **35**, Originale, 1903, (323-326).

——— habits. **Howard**, L. O. The American Monthly Review of Reviews, New York, N.Y., **24**, 1901, (192-195).

——— geographical distribution. **Howard**, L. O. Washington, D.C., Treasury Dept., Pub. Hlth. Mar. Hosp. Serv. Rep. (Supplement), **18**, No. 46, 1903, (7, with map). 23 cm.

——— general structure. **Parker**, H. B. Annual report of the Surgeon-General of the public health and marine hospital service of the United States for the fiscal year 1902. Washington, D.C., 1903, (452-454).

——— *punctolateralis* n. sp. Queensland. **Theobald**, F. V. Entomologist, London, **36**, 1903, (156-157).

*Stethomyia* n. gen., *S. nimba* n. sp. **Theobald**, F. V. Mon. Culicidae, London, **3**, 1903, (13. 62); J. Trop. Med., London, **5**, 1903, (181-183).

——— *fragilis* n. sp. Malay. **Theobald**, F. V. Entomologist, London, **36**, 1903, (257-258).

*Taeniorhynchus* nn. spp. **Theobald**, F. V. Mon. Culicidae, London, **3**, 1903, (261-265).

*Toxorhynchites marshalli* n. sp. **Theobald**, F. V. l.c. (121).

*Uranotaenia* nn. spp. **Theobald**, F. V. l.c. (293-303).

*Verrallina* n. gen. **Theobald**, F. V. l.c. (295).

## CHIRONOMIDAE.

### GENERAL.

**Needham**, J. G. Food of brook trout (*Salmo fontinalis*) in Bone pond. [Species of *Chironomidae*]. Albany Univ., N.Y., Bull. St. Mus., No. **68**, 1903, (204-217, with pl.).

### SPECIAL.

*Ceratopogon* nn. spp. Egypt. **Becker**, T. Berlin, Mitt. Zool. Mus., **2**, H. 2, (72-75).

——— *hollensis* n. sp. **Melander**, A. L. and **Brues**, C. T. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **5**, 1903, (13).

——— *varicolor* n. sp. **Coquillett**, D. W. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (84-85).

*Chironomus* nn. spp. **Becker**, T. Berlin, Mitt. Zool. Mus., **2**, H. 2, (71).

——— *cubiculorum* Doleschall, larvæ and adult insect described and notes on habits. 5. **de Nicéville**, L. (the late). Insect in Calcutta municipal water. Calcutta, Ind. Mus. Notes, **5**, 1903, (189-191, with pl.).

——— *halteralis* n. sp. **Coquillett**, D. W. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **12**, 1901, (16-18).

——— (*Orthocladus*) *sordidellus*, note on the habits. **Taylor**, T. H. London, Trans. Ent. Soc., **1903**, (521-523).

*Clunio bicolor* Kieff, a marine Chironomid new to the fauna of Great Britain. Liverpool, Proc. biol. Soc., **17**, 1903, (81-86).

*Macroptilium* n. gen., *M. nudum* n. sp. **Becker**, T. Berlin, Mitt. Zool. Mus., **2**, H. 2, (76-77).

*Tanypus dyari* n. sp. **Coquillett**, D. W. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (84-85).

*Thalassomyia obscura* n. sp. **Johannsen**, O. A. New York. Albany Univ., N.Y., Bull. St. Mus., No. **68**, 1903, (436-439). 22.8 cm.

## DIXIDAE.

*Dixa clavulus*, *D. modesta*. **Johannsen**, O. A. Philadelphia, Pa., Ent. News Acad. Nat. Sci., Amer. Ent. Soc., **14**, 1903, (302).

—— *modesta* n. sp. New York. **Johannsen**, O. A. Albany Univ., N. Y., Bull. St. Mus., No. **68**, 1903, (429-431).

*Melanophora roralis*, parasitism on *Porcellio*. **Brues**, C. T. Philadelphia, Pa., Ent. News Acad. Nat. Sci., Amer. Ent. Soc., **14**, 1903, (291).

## TIPULIDAE.

## GENERAL.

**Snodgrass**, R. E. The terminal abdominal segments of female *Tipulidae*. New York, N. Y., J. Ent. Soc., **11**, 1903, (177-183, with 2 pls.).

## SPECIAL.

*Idiophlebia* n. gen., *I. pallida* n. sp. Von den Karolinen. **Grünberg**, K. Zool. Anz., Leipzig, **26**, 1903, (524-528).

*Limnophila costata* n. sp. New Mexico. **Coquillett**, D. W. Psyche, Cambridge, Mass., **9**, 1901, (149-150).

*Rhypholophus cockerellii* n. sp. New Mexico. **Coquillett**, D. W. *l.c.* (149-150).

*Trimicra strasseni* n. sp. **Enderlein**, G. Wissenschaftliche Ergebnisse der deutschen Tiefsee-Expedition, Bd. 3, Lfg. 7, Jena, 1903, (257).

## BIBIONIDAE.

*Dilophus africanus* n. sp. Egypt. **Becker**, T. Berlin, Mitt. Zool. Mus., **2**, H 2, (79).

## SIMULIIDAE.

*Simulia* sp., massenhaftes Auftreten in Nordwestdeutschland. **Plettke**, Fr. Aus d. Heimat, Bremerhaven, **1901/02**, 1903, (44-47).

—— *columbaeensis*. **Rudow**. Insektenbörse, Leipzig, **20**, 1903, (276).

*Simulium damnosum* n. sp. Equatorial East Africa. **Theobald**, F. V. Rep. Sleeping Sickness Comm. No. 3. London (Royal Society), 1903, (40).

—— *griseicollis* n. sp. **Becker**, T. Berlin, Mitt. Zool. Mus., **2**, H 2, 1903, (78).

## STRATIOMYIDAE.

## SPECIAL.

*Nemotelus* nn. spp. Egypt. **Becker**, T. Berlin, Mitt. Zool. Mus., **2**, 2, 1903, (7-9).

*Pachygaster maculicornis* n. sp. **Hine**, J. S. Ohio Nat., Columbus, Ohio, **2**, 1902, (228-230).

—— *minutissimus* Zett., new to Britain and notes on *P. tarsalis*. **Sharp**, D. Ent. Mag., London, **39**, 1903, (221-222).

## LEPTIDAE.

*Rhachicerus nitidus* n. sp. **Johnson**, C. W. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (22-26, with fig. in text).

*Symphoromyia cinerea* n. sp. **Johnson**, C. W. *l.c.* (25).

*Xylomyia aterrima* n. sp. **Johnson**, C. W. *l.c.* (25).

## TABANIDAE.

## GENERAL.

**Hine**, J. S. *Tabanidae* of Ohio with a catalogue and bibliography of the species from America north of Mexico. Columbus, Ohio, Acad. Sci. Sp. Paprs., No. **5**, 1903; [Reprint], Columbus, Ohio, Univ. Bull., (Ser. 7), No. **19**, (1-57, with pl.). 23.2 cm.

## SPECIAL.

*Chrysops* nn. spp. Ohio. **Hine**, J. S. Columbus, Ohio, Acad. Sci. Sp. Paprs. No. **5**, 1903; [Reprint], Columbus, Ohio, Univ. Bull., (Ser. 7), No. **19**, (34-42).

## SCENOPINIDAE.

*Scenopinus lucidus* n. sp. Luxor.  
Becker, T. Berlin, Mitt. Zool. Mus., 2,  
2, 1903, (39).

## THEREVIDAE.

*Pilocephala albohirta* n. sp. Ricardo,  
G. and Theobald, F. V. Diptera. Nat.  
Hist. Sokotra, (361).

———— *nigrifrons* n. sp. Egypt.  
Becker, T. Berlin, Mitt. Zool. Mus., 2,  
H 2, (34).

## BOMBYLIIDAE.

*Anthrax* nn. spp. Egypt. Becker, T.  
Berlin, Mitt. Zool. Mus., 2, 2, 1903,  
23-25).

———— *sokotrae* n. sp. Ricardo,  
G. and Theobald, F. V. Diptera. Nat.  
Hist. Sokotra, (367).

*Argyromoeba* nn. spp. Becker, T.  
Berlin, Mitt. Zool. Mus., 2, H 2, (29).

———— *fuscipennis* n. sp. Ricardo,  
G. and Theobald, F. V. Diptera. Nat.  
Hist. Sokotra, (366).

*Bombylius pumilus*, Parasitismus bei  
*Colletes daviesana*. Nilsen, J. C. Zool.  
Jahrb., Jena, Abt. f. Syst., 18, 1903,  
(647-658, mit 1 Taf.).

*Exoprosopa* nn. spp. Ricardo, G. and  
Theobald, F. V. Diptera. Nat. Hist.  
Sokotra, (364-365).

*Mulio* nn. spp. Egypt. Becker, T.  
Berlin, Mitt. Zool. Mus., 2, H 2, (30-31).

———— nn. spp. Becker, T. Zs.  
Hymenopter., Teschendorf, 3, 1903, (17-  
32, 89-96, 193-198).

*Systoechus retrogradus* n. sp. Egypt.  
Becker, T. Berlin, Mitt. Zool. Mus., 2,  
H 2, (17).

## ACROCERIDAE.

## GENERAL.

Melander, A. L. Notes on the *Acro-*  
*ceridae*. Contributions from the Zool.  
Lab., Univ. of Texas, No. 31. Phila-  
delphia, Pa., Ent. News Acad. Nat. Sci.,  
13, 1902, (178-182).

## SPECIAL.

*Opsebius agelenae* n. sp. Melander,  
A. L. Philadelphia, Pa., Ent. News  
Acad. Nat. Sci., 13, 1902, (178-182).

## ASILIDAE.

*Antiphrisson trifarius* Lw., *A. fuli-*  
*gineus* Lw., *A. augustifrons* Lw., *A.*  
*aberrans* Thin., *A. adpressus* Lw.,  
*A. elachipteryx* Lw., Beschreibung,  
2 nn. spp. Lichtwardt, B. Budapest,  
Ann. Hist.-Nat. Mus. Nat. Hung., 1,  
1903, (102-106).

*Dasyllis affinis*, validity of the species.  
Johnson, C. W. Philadelphia, Pa., Ent.  
News Acad. Nat. Sci., 13, 1902, (77-78).

*Hoplistomera nigrescens* n. sp.  
Ricardo, G. and Theobald, F. V. Di-  
ptera. Nat. Hist. Sokotra, (362).

*Ommatius tibialis* n. sp. Ricardo, G.  
and Theobald, F. V. l.c. (375).

*Promaelius sokotrae* n. sp. Ricardo,  
G. and Theobald, F. V. l.c. (362).

*Stichopogon lucidiventris* n. sp.  
Egypt. Becker, T. Berlin, Mitt. Zool.  
Mus., 2, H 2, (36).

## EMPIDAE.

## GENERAL.

Coquillett, D. W. The genera of the  
Dipterous family *Empididae* with notes  
and new species. [With bibliography.]  
Washington, D.C., Proc. Ent. Soc., 5,  
1903, (245-272).

Slosson, A. T. Hunting Empids.  
Philadelphia, Pa., Ent. News Acad.  
Nat. Sci., 14, 1903, (265-269).

## SPECIAL.

*Anthalia* nn. spp. Coquillett, D. W.  
Washington, D.C., Proc. Ent. Soc., 5,  
1903, (268).

*Boreodromia* n. gen., type *Synampho-*  
*tera bicolor* Loew. Coquillett, D. W.  
l.c. (247, 260).

*Coloboneura nana* n. sp. Coquillett,  
D. W. l.c. (267).

*Empis* nn. spp. Coquillett, D. W.  
l.c. (269-271).

*Halsanalotes* n. gen., *H. amaurus* n. sp. Egypt. **Becker**, T. Berlin, Mitt. Zool. Mus., 2, H. 2, (41-42).

*Lampremis setigera* n. sp. **Coquillett**, D. W. Washington, D.C., Proc. Ent. Soc., 5, 1903, (272).

*Metachela* n. gen., type *Hemerodromia collusor*. Melander. **Coquillett**, D. W. l.c. (253, 263).

*Microphorus* nn. spp. **Coquillett**, D. W. l.c. (268).

*Oedalea pruinosa* n. sp. **Coquillett**, D. W. l.c. (267).

*Schistostoma* n. gen., *S. eremiata* n. sp. Egypt. **Becker**, T. Berlin, Mitt. Zool. Mus., 2, H. 2, (46-47).

*Tachydromia* nn. spp. Egypt. **Becker**, T. l.c. 2, 1903, (44-45).

— nn. spp. **Coquillett**, D. W. Washington, D.C., Proc. Ent. Soc., 5, 1903, (266).

*Tachypeza pruinosa* n. sp. **Coquillett**, D. W. l.c. (267).

## DOLICHOPIDAE.

*Chrysotus philtrum* n. sp. **Melander**, A. L. Austin, Cont. Zool. Lab. Univ. Tex. No. 42 in Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (72-75, with fig. in text).

*Dolichopus* nn. spp. Egypt. **Becker**, T. Berlin, Mitt. Zool. Mus., 2, H. 2, (65).

*Hydrophorus brevitentris* n. sp. Egypt. **Becker**, T. l.c. (60).

*Meringopherusa* n. gen., *M. separata*, *M. conneza* nn. spp. Egypt. **Becker**, T. l.c. (56-57).

*Paralleloneurum* n. gen., *P. cilifemoratum* n. sp. Egypt. **Becker**, T. l.c. (51-53).

*Psilopus adumbratus* n. sp. Egypt. **Becker**, T. l.c. (62).

*Syntormon* nn. spp. Egypt. **Becker**, T. l.c. (53-54).

*Tachytrechus salinarius* n. sp. Egypt. **Becker**, T. l.c. (63).

*Thinophilus* nn. spp. Egypt. **Becker**, T. l.c. (48-50).

*Trigonocera* n. gen., *T. rivosca* n. sp. Egypt. **Becker**, T. l.c. (57-58).

## PHORIDAE.

### GENERAL.

**Brues**, C. T. A monograph of the North American *Phoridae* [with bibliography]. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., 29, 1903, (331-404, with pl.).

### SPECIAL.

*Aphiochaeta* nn. spp. **Brues**, C. T. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., 29, 1903, (360-362).

*Apocephalus wheeleri*? n. sp. **Brues**, C. T. l.c. (373).

*Conicera atra* var., *neotropica* [neotropica] n. var., *C. aldrichii* n. sp. **Brues**, C. T. l.c. (379-380).

*Hypocera* nn. spp. **Brues**, C. T. l.c. (352-356).

*Melaltoncha* n. gen., *M. pulchella* n. sp. **Brues**, C. T. l.c. (374-375).

*Metopina pachycondylae* n. sp. **Brues**, C. T. l.c. (384).

*Pachyneurella* n. gen. **Brues**, C. T. l.c. (382).

*Phora* nn. spp. **Brues**, C. T. l.c. (341-347).

— nn. spp. **Melander**, A. L. and **Brues**, C. T. Wood's Holl, Mass., Mar. Biol. Lab. Bull., 5, 1903, (14-16).

*Stethopathus occidentalis* n. sp. **Melander**, A. L. and **Brues**, C. T. l.c. (17).

*Syneura* n. gen. for *Phora cocciphila* Coq. **Brues**, C. T. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., 29, 1903, (383).

*Trineura montana* n. sp. **Brues**, C. T. l.c. (378).

## TERMITOXENIDAE.

**Wasmann**, E. Die Thorakalanhänge der *Termitoxenidae*, ihr Bau, ihre imaginale Entwicklung und phylogenetische Bedeutung. Verh. D. zool. Ges., Leipzig, 13, 1903, (113-120, mit 2 Taf.).

## PLATYPEZIDAE.

*Agathomyia viduella* Zett., new to Britain. **Wood**, T. H. Ent. Mag., London, 39, 1903, (271-272).

## PIPUNCULIDAE.

*Nephrocerus daeckei* n. sp. **Johnson**, C. W. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (107-108).

*Pipunculus amboinalis* Walk., systematisch; 6 nn. spp. **Kertész**, K. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., **1**, 1903, (465-471).

———— *pallipes* n. sp. **Johnson**, C. W. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (107-108).

*Verrallia aucta* and its host. **Jenkins**, F. J. H. Ent. Mag., London, **39**, 1903, (222-223).

## CONOPIDAE.

*Physocephala vittata* var. Egypt. **Becker**, T. Berlin. Mit. Zool. Mus., **2**, H 2, (192).

## SYRPHIDAE.

## GENERAL.

**Brues**, C. T. Notes on some California myrmecophiles. [*Heteracrus tristrodus* Horn and Syrphid larva.] Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (147-149, with fig. in text).

## SPECIAL.

*Ceria bicolor* Kert., Beschreibung. *C. rulpii* Will. faunistisch. et 5 nn. spp. **Kertész**, K. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., **1**, 1903, (433-440).

———— *willistonii*, puparium. **Banks**, N. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (310).

*Chamaesyrphus lusitanicus* Mik., a new British Syrphid fly. **Sharp**, D. Ent. Mag., London, **39**, 1903, (197).

*Chilosia dombressonensis*. **de Rougemont**, F. Arch. Sci. Phys. Genève, [4], **16**, 1903, (731-732).

———— *skinneri* n. sp. New Mexico. **Johnson**, C. W. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (101).

*Eristalis quinquelineatus* n. sp. Egypt. **Becker**, T. Berlin, Mitt. Zool. Mus., **2**, H 2, (82).

*Eristalis tenax*, habit of hovering and emitting a musical note. **Harris**, W. H. London, J. Quek. Cl., **8**, 1903, (513-520).

*Melithreptus calcicolatus* n. sp. Egypt. **Becker**, T. Berlin, Mitt. Zool. Mus., **2**, H 2, (91).

*Pseudodoros* n. gen., *P. nigricollis* n. sp. Egypt. **Becker**, T. l.c. (92).

*Syritta subtilis* n. sp. Egypt. **Becker**, T. l.c. (89).

*Syrphus longicornis* n. sp. Egypt. **Becker**, T. l.c. (84).

## MUSCIDAE ACALYPTRATAE.

## GENERAL.

*Trachiniscidae* nov. Fam. verw. mit *Trypetidae*. **Kertész**, K. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., **1**, 1903, (355-358, Taf. XV).

## SPECIAL.

*Aelocetor* n. gen. Egypt. **Becker**, T. Berlin, Mitt. Zool. Mus., **2**, H 2, (169).

*Agromyza* nn. spp. Egypt. **Becker**, T. l.c. (190).

*Amydrosoma* n. gen., *A. discelens* n. sp. Egypt. **Becker**, T. l.c. (140-141).

*Anacamptoneurum* n. gen., *A. obliquum* n. sp. Egypt. **Becker**, T. l.c. (155).

*Anatalanta formiciformis* n. sp. Antarktisches Gebiet. **Enderlein**, G. Wissenschaftliche Ergebnisse der deutschen Tiefsee-Expedition, Bd 3, Lfg 7, Jena, 1903, (226).

*Anatrichus erinaceus* n. sp. Egypt. **Becker**, T. Berlin, Mitt. Zool. Mus., **2**, H. 2, (152).

*Aphaniosoma* n. gen., *A. approximatum* n. sp. Egypt. **Becker**, T. l.c. (186).

*Asmeringa* n. gen., *A. inermis* n. sp. Egypt. **Becker**, T. l.c. (174).

*Assuania* n. gen., *A. glabra* n. sp. Egypt. **Becker**, T. l.c. (149-150).

*Atissa* nn. spp. Egypt. **Becker**, T. l.c. (162-163).

*Borborus niloticus* n. sp. Egypt. **Becker**, T. l.c. (124).

*Centrophlebomyia* n. gen. **Hendel**, F. Zs. Hymenopter., Teschendorf, 3, 1903, (215-216).

*Chamaeobosca* n. gen., *C. microptera* n. sp. **Speiser**, P. Berliner ent. Zs., 48, 1903, (65-72).

*Chloropisca lucidifrons* n. sp. Egypt. **Becker**, T. Berlin, Mitt. Zool. Mus., 2, H 2, (146).

*Chymomyza* n. gen. = *Drosophila* e. p. **Czerny**, L. Zs. Hymenopter., Teschendorf, 3, 1903, (198-201).

*Clanoncurum* n. gen., *C. infumatum* n. sp. Egypt. **Becker**, T. Berlin, Mitt. Zool. Mus., 2, H 2, (165).

*Clasiopa* nn. spp. Egypt. **Becker**, T. l.c. (161).

*Crasisseta* nn. spp. Egypt. **Becker**, T. l.c. (151-152).

*Craspedorhaeta atra* n. sp. ♀ *C. basalis* Czerny, Beschreibung. **Kertész**, K. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (509-570).

*Dacus* nn. spp. Egypt. **Becker**, T. Berlin, Mitt. Zool. Mus., 2, H. 2, (138-139).

— *oleae*: la questione della mosca olearia. **Berlese**, A. Bollettino di Entomologia agraria, Padova, 9, 1902, (180-184).

*Desmometopa niloticum* n. sp. Egypt. **Becker**, T. Berlin, Mitt. Zool. Mus., 2, H. 2, (158).

*Discomyza vorticis* n. sp. Egypt. **Becker**, T. l.c. (164).

*Drosophila buskii* n. sp. **Coquillett**, D. W. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 12, 1901, (16-18).

— *costata*, *D. fuscimana* Ztt. **Czerny**, L. Zs. Hymenopter., Teschendorf, 3, 1903, (198-201).

*Elephantinosoma* n. gen., *E. chnumi*, *E. perspicendum* nn. spp. Egypt. **Becker**, T. Berlin, Mitt. Zool. Mus., 2, H. 2, (179-180).

*Elyiva*, synopsis der paläarktischen Arten, *E. turcestanica* n. sp. **Hendel**, F. Zs. Hymenopter., Teschendorf, 3, 1903, (213-215).

*Ephygrobia* nn. spp. Egypt. **Becker**, T. Berlin, Mitt. Zool. Mus., 2, H 2, (156-159).

*Eurina triangularis* n. sp. Egypt. **Becker**, T. l.c. (150).

*Glenanthe fascicentris* n. sp. Egypt. **Becker**, T. l.c. (170).

*Hecamede griseceus* n. sp. Egypt. **Becker**, T. l.c. (166).

*Helicobia quadrisetosa* n. sp. **Coquillett**, D. W. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 12, 1901, (16-18).

*Heteromeria* nn. spp. **Kertész**, K. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (567-569).

*Homalometopus* n. gen., *H. albiditinctus* n. sp. Egypt. **Becker**, T. Berlin, Mitt. Zool. Mus., 2, H 2, (175).

*Hyadina fenestrata* n. sp. Egypt. **Becker**, T. l.c. (173).

*Hydrellia* nn. spp. Egypt. **Becker**, T. l.c. (171-172).

— *tritici* n. sp. Australia. **Coquillett**, D. W. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (324).

*Iagaroceras* n. gen., *I. megalops* n. sp. Egypt. **Becker**, T. Berlin, Mitt. Zool. Mus., 2, H 2, (148-149).

*Leptometopa* n. gen., *L. rufifrons* n. sp. Egypt. **Becker**, T. l.c. (188).

*Limesina* nn. spp. Egypt. **Becker**, T. l.c. (126-127).

*Lonchaea aristella* n. sp. Egypt. **Becker**, T. l.c. (129).

*Meriza* n. gen. verwandt mit *Sobercephala*. *M. bistrigata* n. sp. ♀ ♂. *M. dorsata* Cz. ♀, Beschreibung. **Kertész**, K. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (571-572).

*Meromyza*, life history and description; economics. **Webster**, F. M. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., No. 42, 1903, (62). 23 cm.

*Metopostigma* n. gen. Egypt. **Becker**, T. Berlin, Mitt. Zool. Mus., 2, H 2, (146).

*Microneurum* n. gen., *M. maculifrons* n. sp. Egypt. **Becker**, T. l.c. (152-153).

*Monorhiza* n. gen. verw. mit *Sobercephala* Cz. *M. pictipennis* n. sp. **Kertész**, K. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (572-573).

*Myopites variofasciata* n. sp. Egypt. **Becker**, T. Berlin, Mitt. Zool. Mus., 2, H 2, (132).

*Notiphila nigripennis* Meig. **Becker**, Th. Zs. Hymenopter., Teschendorf, 3, 1903, (45-46).

— *setigera* n. sp. Egypt. **Becker**, T. Berlin, Mitt. Zool. Mus., 2, H 2, (167).

*Notonaulax* n. gen., *N. maculifrons*, *N. setulosa*, *N. favillacea* nn. spp. Egypt. **Becker**, T. Lc. (153-155).

*Ockthera* nn. spp. Egypt. **Becker**, T. Lc. (181).

*Ochthiphila inconstans* n. sp. Egypt. **Becker**, T. Lc. (187).

*Oedenops* n. gen., *O. isis* n. sp. Egypt. **Becker**, T. Lc. (178-179).

*Oecinis*, life history and description; economics. **Webster**, F. M. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., No. 42, 1903, (62). 23 cm.

*Ozyna parceguttata* n. sp. Egypt. **Becker**, T. Berlin, Mitt. Zool. Mus., 2, H. 2, 1903, (134).

*Paralimna decipiens* in Egypt. **Becker**, T. Lc. (168).

*Phortica variegata* Fall., new to Britain. **Sharp**, D. Ent. Mag., London, 39, 1903, (248-249).

*Psalidotus* n. gen., *P. prima* n. sp. Egypt. **Becker**, T. Berlin, Mitt. Zool. Mus., 2, H. 2, (191-192).

*Rhinoëssa pictipus* n. sp. Egypt. **Becker**, T. Lc. (185).

*Scatella variofemorata* n. sp. Egypt. **Becker**, T. Lc. (185).

*Scatophaga lutaria* and *S. stercoraria*, male organs. **Wesché**, W. London, J. Quek. Microsc. Cl., 8, 1903, (411-416, pl. XXII).

*Scatophila farinae* n. sp. Egypt. **Becker**, T. Berlin, Mitt. Zool. Mus., 2, H. 2, (177).

*Schistopterum* n. gen., *S. moebiusi* n. sp. Egypt. **Becker**, T. Lc. (177).

*Scoliocephalus* n. gen., *S. pallidiseta* n. sp. Egypt. **Becker**, T. Lc. (173-174).

*Scoliophthalmus* n. gen., *S. trapezoides* n. sp. Egypt. **Becker**, T. Lc. (147).

*Sepsis* nn spp. Egypt. **Becker**, T. Lc. (142-145).

*Sphyracephala brevicornis* Say. **Houghton**, C. O. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (160).

*Stenophthalmus* n. gen., *S. ocellatus* n. sp. Egypt. **Becker**, T. Lc. (148).

*Tephronota ruficeps*, *T. canadensis* n. sp. **Johnson**, C. W. Lc. (143-144).

*Tetanocera*, Synopsis der paläarktischen Arten. *T. alpestris* n. sp. **Hendel**, F. Zs. Hymenopter., Teschendorf, 3, 1903, (35-37).

*Trachiniscus* n. gen., *T. cyaneiventris* n. sp. ♀ **Kertész**, K. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (355-358, Taf. XV).

*Trypeta* nn. spp. Egypt. **Becker**, T. Berlin, Mitt. Zool. Mus., 2, H. 2, (135-136).

*Zonosema? dubia* n. sp. New Mexico. **Johnson**, C. W. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., 29, 1903, (101-106).

## MUSCIDAE CALYPTROTAE.

### GENERAL.

**Howard**, L. O. The carriage of disease by flies. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. 30, 1901, (39-45).

**Lommel**, V. Bericht über eine Reise im Bezirke Kilwa zur Feststellung des Vorkommens und zur Beobachtung der Lebensgewohnheiten der Tsetsefliege. Ber. Landw. Ostafrika, Heidelberg, 1, 1903, (341-350).

**Schat**, P. Weitere Mitteilungen über Surra [eine durch den Stich von *Stomoxys calcitrans* verursachte Rinderkrankheit auf Java]. (Holländisch) Arch. Java Suiker., Soerabaya, 11, 1903, (49-67, mit 2 Taf.).

### SPECIAL.

*Alloeostylus* Schn., Nachtrag zur Gattung. **Schnabl**, J. Zs. Hymenopter., Teschendorf, 3, 1903, (46, 111).

*Anthomyia bifasciata* n. sp. **Ricardo**, G. and **Theobald**, F. V. Diptera. Nat. Hist. Sokotra, (367).

*Atherigona scutellaris* n. sp. Egypt. **Becker**, T. Berlin, Mitt. Zool. Mus., 2, H. 2, (110).

*Coenosia attenuata* n. sp. Egypt. **Becker**, T. l.c. (121).

*Cordylobia* n. gen. fcr *Ochrcmzia anthrophaga* Blanch. **Grünterg**, K. Berlin, SitzBer. Ges. natf. Freunde, 1903, (400-416, mit 2 Taf.).

*Degeeria funebris* Meg. parasite sur *Haltica ampelophaga* Guer. **Vaney**, C. et **Conte**, A. Paris, C. R. Acad. sci., 136, 1903, (1275-1276).

*Glossina* Westwood, monograph of the Tsetse-flies based on a collection in the British Museum. With a chapter on the mouth-parts by H. J. Hansen; *G. pallidipes* n. sp. F. Africa. **Austen**, E. E. London (British Museum), 1903, (IX + 319, 9 pls.). [Review], Nature, London, 69, 1903, (123-124).

———— *pallidis* as agent in transmission of sleeping sickness. **Austen**, E. E. London, Proc. Zool. Soc., 1903, 2, (316-317).

———— as agent in sleeping sickness. **Bruce**, D., **Nabarro**, D. and **Greig**, E. D. W. Rep. Sleeping Sickness Comm., No. 4, (56-64, map).

*Homalomyia* nn. spp. Bolivien. **Ozerny**, L. Zs. Hymenopter., Teschendorf, 3, 1903, (239-240).

*Homogenia* spp. **Van der Wulp**, F. M. Biol. Centr.-Amer., London, 1903, II-III, (437-439).

*Hyalomyia* spp. **Van der Wulp**, F. M. Lc. (440-445).

*Jurinia* spp. **Van der Wulp**, F. M. l.c. (466-469).

*Lispe* nn. spp. Egypt. **Becker**, T. Berlin, Mit. Zool. Mus., 2, H 2, (113-118).

*Musca*, habits. **Geddings**, H. D. Washington, D.C., Treasury Dept., Pub. Hlth. Mar. Hosp. Ser. Hyg. Lab. Bull. Rep., 18, (Supplement), 1903, (10). 23 cm.

———— *domestica*, accoppiamento. **Berlese**, A. Riv. patol. veg., Portici, 9, fasc. 2°, 1902, (345-347, con fig.).

———— nach biologischen Gesichtspunkten betrachtet. **Witt**, F. Aus d. Schule, Leipzig, 14, 1903, (570-573).

(N 2-9053)

*Ocyrteta* spp. **Van der Wulp**, F. M. Biol. Centr.-Amer., London, 1903, II-III, (450-452).

*Pegomyia nitidula* n. sp. New Mexico. **Cocquillet** in **Johnson**, C. W. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., 29, 1903, (101-106).

*Phorastha lridwell* n. sp. **Hine**, J. S. Ohio Nat., Columbus, Ohio, 2, 1902, (228-230).

*Thryptocera (gymnogaeria) pomonellae* n. sp. Crimea. **Schnabl** and **Mokricek**, S. Rev. Russ. Ent., Jaroslavl, 3, 1903, (211-217).

*Trochilodes* n. gen., *T. skinneri* n. sp. New Mexico. **Cocquillet** in **Johnson**, C. W. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., 29, 1903, (101-106).

*Varichaeta* n. nom. = *Eurigaster* Macq. **Speiser**, P. Berliner ent. Zs., 48, 1903, (65-72).

*Xanthomelana* spp. **Van der Wulp**, F. M. Biol. Centr.-Amer., London, 1903, II-III, (451-455).

## OESTRIDAE.

### GENERAL.

**Conte**, A. et **Vaney**, C. Sur la structure de la cellule trachéale de l'oestre et l'origine des formations ergastoplasmiques. Paris, C. R. Acad. sci., 136, 1903, (561-562).

**Tarnani**, I. K. Nouvelles observations sur les oestres. (Russ.) Rev. Russ. Ent., Jaroslavl, 3, 1903, (101-102).

### SPECIAL.

*Cuterebra similis* n. sp. New Mexico. **Johnson**, C. W. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., 29, 1903, (101).

*Dermatobia hominis*, general development. **Ward**, H. B. Lincoln, Stud. Zool. Lab., Univ. Neb., No. 58, 1903, (10, with pl.). 23 cm.

*Gastrophilus*; importanza patologica delle larve nello stomaco del cavallo. **Perroncito**, E. Torino, Giorn. Acc. med., 66, 1902, (374-377).



*Hypoderma bovis* [Réponse à une question de M. H. Giraudeau. Girard, A. Feuille jeunes natural., Paris, (sér. 4), 33, 1903, (102-103).

\_\_\_\_\_ [à propos de la question de M. H. Giraudeau]. Kleffer, J. J. *l.c.* (103).

\_\_\_\_\_ metamorphosis, parasitism. (Danish) Koch, T. P. Kjöbenhavn, Mdskf. Dyrl., 15, 1903, (129-159).

\_\_\_\_\_ [à propos de la question de M. H. Giraudeau]. Bonne. Feuille jeunes natural., Paris, (sér. 4), 33, 1903, (103).

\_\_\_\_\_ Entwicklung. Thomann, H. Schweiz. Landw. Zeitschr., Aarau, 30, 1902, (1100-1104).

*Oestrus maculatus* Wied. im westphäl. zool. Garten zu Münster. Landois, H. Zool. Garten, Frankfurt a. M., 44, 1903, (53-55); Münster, Jahresber. ProvVer. Wiss., 30, (1901-02), 1902, (64-66).

#### PUPIPARA.

Speiser, P. Diptera Pupipara (from Malay Peninsula. Fascic. Malay Zool., 1, (117-126).

#### HIPPOBOSCIDAE.

##### GENERAL.

Laveran, A. Sur deux Hippobosques du Transvaal susceptibles de propager *Trypanosoma theileri*. Paris, C. R. soc. biol., 55, 1903, (242-243).

##### SPECIAL.

*Hippobosca*, descriptions of species. Austen, E. E. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, (256-260).

\_\_\_\_\_ *tasmanica* n. sp. Tasmania. Wesché, W. *l.c.* 11, 1903, (384-385, with text-fig.).

*Lipoptena cerri* l. S. Africa. Austen, E. E. *l.c.* 12, 1903, (260-261).

\_\_\_\_\_ *gracilis* n. sp. Malay Peninsula. Speiser, P. Fascic. Malay. Zool., 1, (121-123).

*Lynchia maura* Big. ein sicilianischer Taubenparasit. Speiser, P. Centralbl. Bakt., Jena, Abt. 1, 33, Originale, 1903, (609-610).

*Olfersia* spp. Austen, E. E. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, (264-265).

\_\_\_\_\_ nn. spp. Mexico. Van der Wulp, F. M. Biol. Centr.-Amer., London, 1903, II, III, (429-430).

*Ornihoica* spp. Austen, E. E. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, (263).

*Ornithomyia* spp. Austen, E. E. *l.c.* (261-263).

\_\_\_\_\_ nn. spp. Mexico. Van der Wulp, F. M. Biol. Centr.-Amer., London, 1903, II and III, (431-432).

*Pseudolfersia* spp. Austen, E. E. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (265-266).

#### BRAULIDAE.

*Braula coeca*, die Bienenlaus. Dambach, Schweiz. Bienenztg, Aarau, 25, 1902, (447-449).

#### NYCTERIBIIDAE.

*Nycteribia (Aerochlidia) chlamydophora* n. sp. Malay Peninsula. Speiser, P. Fascic. Malay. Zool., 1, (123-125).

#### INCERTAE SEDIS.

*Ascodipteron siamense* n. sp. Malay Peninsula. Speiser, P. Fascic. Malay. Zool., 1, (125-126).

#### LIST OF NEW GENERA AND SPECIES.

*Acartomyia* n. gen. [Culicidae]. Theobald. 180.

\_\_\_\_\_ *zammitii*. Theobald. 180.

*Actocetor* n. gen. [Muscidae Acalyptratae]. Becker. 14.

*AEDEOMYIA* [Culicidae].

\_\_\_\_\_ *americana*. Neveu-Lemaire. 132.

*Aedimorphus* n. gen. [Culicidae]. Theobald. 180.

- AGROMYZA** [Muscidae Acalyptratae].  
 — *congesta*. Becker. 14.  
 — *piliseta*. Becker. 14.  
 — *squamata*. Becker. 14.  
 — *tuberculata*. Becker. 14.
- Aldrichia** n. gen. [Culicidae]. Theobald. 180.  
 — *error*. Theobald. 180.
- Amydrosoma** n. gen. [Muscidae Acalyptratae]. Becker. 14.  
 — *discedens*. Becker. 14.
- Anacamptoneurum** n. gen. [Muscidae Acalyptratae]. Becker. 14.  
 — *obliquum*. Becker. 14.
- ANATALANTA** [Muscidae Acalyptratae].  
 — *formiciformis*. Enderlein. 49.
- ANATRICHUS** [Muscidae Acalyptratae].  
 — *erinaceus*. Becker. 14.
- ANOPEHELES** [Culicidae].  
 — *aikenii*. Theobald. 180.  
 — *algeriensis*. Theobald. 180.  
 — *antennatus*. Becker. 14.  
 — *culiciformis*. Cogill. 29.  
 — *immaculatus*. Theobald. 180.  
 — *maculicosta*. Becker. 14.
- ANTHALIA** [Empididae].  
 — *flava*. Coquillett. 32.  
 — *stigmatis*. Coquillett. 32.
- ANTHOMYIA** [Muscidae Calyptratae].  
 — *bifasciata*. Ricardo. 141.
- ANTHRAX** [Bombyliidae].  
 — *anguste-oculata*. Becker. 14.  
 — *longitarsis*. Becker. 14.  
 — *sokotrae*. Ricardo. 141.  
 — *unicolor*. Becker. 14.
- ANTIPHRISSON** [Asilidae].  
 — *sareptanus*. Lichtwardt. 113.  
 — *thammeri*. Lichtwardt. 113.
- Aphaniosoma** n. gen. [Muscidae Acalyptratae]. Becker. 14.  
 — *approximatum*. Becker. 14.
- APHIOCHAETA** [Phoridae].  
 — *atlantica*. Brues. 24.  
 — *obacura*. Brues. 24.
- APOCEPHALUS** [Phoridae].  
 — *scheeleri*. Brues. 24.
- Aptanogyna** n. gen. [Mycetophilidae]. Börner. 20.  
 — *mikrothorax*. Börner. 20.  
 — *schillei*. Börner. 20.
- ARGYROMOEBA** [Bombyliidae].  
 — *anthracina*. Becker. 14.  
 — *fuscipennis*. Ricardo and Theobald. 141.  
 — *lucida*. Becker. 14.
- Arribalsragia** n. gen. [Culicidae]. Theobald. 180.  
 — *maculipes*. Theobald. 180.
- ASCODIPTERON** [Pupipara].  
 — *siamense*. Speiser. 170.
- Asmeringa** n. gen. [Muscidae Acalyptratae]. Becker. 14.  
 — *inermis*. Becker. 14.
- Assuania** n. gen. [Muscidae Acalyptratae]. Becker. 14.  
 — *glabra*. Becker. 14.
- ATHERIGONA** [Muscidae Calyptratae].  
 — *scutellaris*. Becker. 14.
- ATISSA** [Muscidae Acalyptratae].  
 — *aerosticalis*. Becker. 14.  
 — *hepaticoloris*. Becker. 14.  
 — *kairensis*. Becker. 14.
- BIBIOEPHALA** [Blepharoceridae].  
 — *comstocki*. Kellogg. 95.
- BLEPHAROCERA** [Blepharoceridae].  
 — *jordani*. Kellogg. 95.  
 — *osten-sackeni*. Kellogg. 95.
- BOBBORUS** [Muscidae Acalyptratae].  
 — *niloticus*. Becker. 14.
- Boreodromia** n. gen. [Empididae]. Coquillett. 31.
- Cellia** n. gen. [Culicidae]. Theobald. 180.
- Centrophlebomyia** n. gen. [Muscidae Acalyptratae]. Hendel. 74.
- CERATOPOGON** [Chironomidae].  
 — *flavitarvatus*. Becker. 14.  
 — *hollensis*. Melander and Brues. 126.  
 — *imparunguis*. Becker. 14.  
 — *luteicollis*. Becker. 14.  
 — *puncticollis*. Becker. 14.  
 — *varicolor*. Coquillett. 33.
- CERIA** [Syrphidae].  
 — *boliviana*. Kertész. 99.  
 — *facialis*. Kertész. 99.  
 — *pyrrhocera*. Kertész. 99.  
 — *trichopoda*. Kertész. 99.  
 — *variabilis*. Kertész. 99.
- Chamaebosca** n. gen. [Muscidae Acalyptratae]. Speiser. 169.  
 — *microptera*. Speiser. 169.
- CHILOSLA** [Syrphidae].  
 — *skinneri*. Johnson. 88.

- CHIRONOMUS [Chironomidae].  
 — *halteralis*. Coquillett. 32.  
 — *nigrocinctus*. Becker. 14.  
 — *variolaris*. Becker. 14.
- CHLOROPISCA [Muscidae Acalyptratae].  
 — *lucidifrons*. Becker. 14.
- CHRISTYA n. gen. [Culicidae]. Theobald. 181.  
 — *implexa*. Theobald. 181.
- CHRYSOPS [Tabanidae].  
 — *brunneus*. Hine. 77.  
 — *sackeni*. Hine. 77.
- CHRYSOTUS [Dolichopidae].  
 — *philtrum*. Melander. 125.
- CHYMOMYZA n. gen. [Muscidae Acalyptratae]. Czerny. 36.
- CLANONEURUM n. gen. [Muscidae Acalyptratae]. Becker. 14.  
 — *infumatum*. Becker. 14.
- CLASIOPA [Muscidae Acalyptratae].  
 — *galactoptera*. Becker. 14.  
 — *quadripectinata*. Becker. 14.
- COENOSIA [Muscidae Acalyptratae].  
 — *attenuata*. Becker. 14.
- COLOBONEURA [Empidae].  
 — *nana*. Coquillett. 31.
- CONICERA [Phoridae].  
 — *aldrichi*. Brues. 24.  
 — *atra* var. *neotropica* n. var. Brues. 24.
- CORDYLOBA n. gen. [Muscidae Acalyptratae]. Grünberg. 66.
- CORETHRA [Culicidae].  
 — *albipes*. Johannsen. 87.  
 — *brakeleyi*. Coquillett. 33.  
 — *ceratopogones*. Theobald. 180.
- CRASSISETA [Muscidae Acalyptratae].  
 — *flavofrontata*. Becker. 14.  
 — *trisulcata*. Becker. 14.
- CRASPEDOCHAETA [Muscidae Acalyptratae].  
 — *atra*. Kertész. 101.
- CULEX [Culicidae].  
 — *alis*. Theobald. 180.  
 — *anarmostus*. Theobald. 180.  
 — *annulifera*. Ludlow. 116.  
 — *apicalis*. Theobald. 180.  
 — *azoriensis*. Theobald. 180.  
 — *bilineatus*. Theobald. 180.  
 — *corniger*. Theobald. 180.  
 — *creticus*. Theobald. 180.  
 — *crinifer*. Theobald. 180.  
 — *cumminei*. Theobald. 180.  
 — *cylindricus*. Theobald. 180.
- CULEX [Culicidae].  
 — *fragilis*. Ludlow. 116.<sup>1</sup>  
 — *gelidus* var. *sinensis* n. var. Theobald. 180.  
 — *gnophodes*. Theobald. 180.  
 — *halifaxii*. Theobald. 180.  
 — *imitator*. Theobald. 180.  
 — *janitor*. Theobald. 180.  
 — *longifurcatus*. Becker. 14.  
 — *mathisi*. Neveu-Lemaire. 132.  
 — *nocturnus*. Theobald. 180.  
 — *nubilis*. Theobald. 180.  
 — *ocellatus*. Theobald. 180.  
 — *palus*. Theobald. 180.  
 — *perezignus*. Theobald. 180.  
 — *pleuristriatus*. Theobald. 180.  
 — *quasigelidus*. Theobald. 180.  
 — *sergentii*. Theobald. 180.  
 — *similis*. Theobald. 180.  
 — *singalesi*. Marlatt. 121.  
 — *terrei*. Theobald. 180.  
 — *thalassius*. Theobald. 180.  
 — *theileri*. Theobald. 180.  
 — *tortilis*. Theobald. 177.  
 — *transvaalensis*. Theobald. 180.  
 — *varioannulatus*. Theobald. 180.  
 — *viridis*. Theobald. 180.
- CUTEREBRA [Oestridae].  
 — *similis*. Johnson. 88.
- CYCLOLEPTERON [Culicidae].  
 — *mediopunctatus*. Theobald. 180.
- DACUS [Muscidae Acalyptratae].  
 — *annulatus*. Becker. 14.  
 — *semisphaereus*. Becker. 14.
- DASYCIARA n. gen. [Mycetophilidae]. Kieffer. 104.  
 — *pedestris*. Kieffer. 104.
- DENDROMYIA n. gen. [Culicidae]. Theobald. 180.  
 — *ulocoma*. Theobald. 180.
- DESMOMETOPA [Muscidae Acalyptratae].  
 — *niloticum*. Becker. 14.
- DESVOIDA [Culicidae].  
 — *fusca*. Theobald. 180.
- DILOPHUS [Bibionidae].  
 — *africanus*. Becker. 14.
- DISCOMYZA [Muscidae Acalyptratae].  
 — *rortieis*. Becker. 14.
- DIXA [Dixidae].  
 — *modesta*. Johannsen. 87.

- DOLICHOPUS** [Dolichopidae].  
 ——— *callosus*. Becker. 14.  
 ——— *flavocarinatus*. Becker. 14.
- DROSOPHILA** [Muscidae Acalyptratae].  
 ——— *buskii*. Coquillett. 32.
- Elsphantinosoma** n. gen. [Muscidae Acalyptratae]. Becker. 14.  
 ——— *chnumi*. Becker. 14.  
 ——— *perspicendum*. Becker. 14.
- ELGIVA** [Muscidae Acalyptratae].  
 ——— *turcestanica*. Hendel. 73.
- EMPIS** [Empidae].  
 ——— *brunnea*. Coquillett. 31.  
 ——— *exilis*. Coquillett. 31.  
 ——— *frontalis*. Coquillett. 31.  
 ——— *hirtipes*. Coquillett. 31.  
 ——— *scoparia*. Coquillett. 31.  
 ——— *squamipes*. Coquillett. 31.  
 ——— *tenebrosa*. Coquillett. 31.
- EPHYGROBIA** [Muscidae Acalyptratae].  
 ——— *composita*. Becker. 14.  
 ——— *electa*. Becker. 14.  
 ——— *fratella*. Becker. 14.  
 ——— *nigrifacies*. Becker. 14.  
 ——— *nilotica*. Becker. 14.  
 ——— *radiolata*. Becker. 14.  
 ——— *rufithorax*. Becker. 14.
- ERISTALIS** [Syrphidae].  
 ——— *quiquelineatus*. Becker. 14.
- EUCORETHRA** n. gen. [Culicidae]. Coquillett. 184.  
 ——— *underwoodi*. Coquillett. 184.
- EURINA** [Muscidae Acalyptratae].  
 ——— *triangularis*. Becker. 14.
- EXOPROSOPA** [Bombyliidae].  
 ——— *insularis*. Ricardo and Theobald. 141.  
 ——— *punctipennis*. Ricardo and Theobald. 141.
- FICALBIA** n. gen. [Culicidae]. Theobald. 180.  
 ——— *simplex*. Theobald. 180.
- FINLAYA** n. gen. [Culicidae]. Theobald. 180.  
 ——— *poicilia*. Theobald. 180.
- GILEZIA** n. gen. [Culicidae]. Theobald. 180.  
 ——— *aculeata*. Theobald. 180.
- GLENANTHE** [Muscidae Acalyptratae].  
 ——— *fascioventris*. Becker. 14.
- GLOSSINA** [Muscidae Calyptratae].  
 ——— *pallidipes*. Austen. 6.
- Göeldia** n. gen. [Culicidae]. Theobald. 180.  
 ——— *fluvialis*. Theobald. 180.
- Grabhamia** n. gen. [Culicidae]. Theobald. 180.  
 ——— *ambiguus*. Theobald. 180.  
 ——— *durbanensis*. Theobald. 180.  
 ——— *pygmaea*. Theobald. 180.  
 ——— *spencerii* var. *idahoensis* n. var. Theobald. 180.
- Grassia** n. gen. [Culicidae]. Theobald. 178.
- HAEMAGOGUS** [Culicidae].  
 ——— *albomaculatus*. Theobald. 180.  
 ——— *equinus*. Theobald. 177.
- Halsanalotes** n. gen. [Empidae]. Becker. 14.  
 ——— *amaurus*. Becker. 14.
- HECAMEDE** [Muscidae Acalyptratae].  
 ——— *grisea*. Becker. 14.
- HELICOBIA** [Muscidae Acalyptratae].  
 ——— *quadrisetosa*. Coquillett. 32.
- Heptaphlebomyia** n. gen. [Culicidae]. Theobald. 180.  
 ——— *simplex*. Theobald. 180.
- HETEROMERINGIA** [Muscidae Acalyptratae].  
 ——— *czernyi*. Kertész. 101.  
 ——— *nigrifrons*. Kertész. 101.
- HIPPOBOSCA** [Hippoboscidae].  
 ——— *tasmanica*. Wesché. 196.
- Homalomotopus** n. gen. [Muscidae Acalyptratae]. Becker. 14.  
 ——— *albiditinctus*. Becker. 14.
- HOMALOMYIA** [Muscidae Calyptratae].  
 ——— *hyalinipennis*. Czerny. 37.  
 ——— *obscuripennis*. Czerny. 37.
- HOPLISTOMERA** [Asilidae].  
 ——— *nigrescens*. Ricardo and Theobald. 141.
- Howardia** n. gen. [Culicidae]. Theobald. 178.
- Howardina** n. gen. [Culicidae]. Theobald. 180.  
 ——— *greenii*. Theobald. 180.
- HYADINA** [Muscidae Acalyptratae].  
 ——— *feneestrata*. Becker. 14.
- HYDRELLIA** [Muscidae Acalyptratae].  
 ——— *approximata*. Becker. 14.  
 ——— *limosina*. Becker. 14.  
 ——— *poecilogastra*. Becker. 14.  
 ——— *tritici*. Coquillett. 34.

- HYDROPHORUS** [Dolichopidae].  
 ————— *brevicentr.* s. Becker. 14.
- HYOCERA** [Phoridae].  
 ————— *ehrmanni*. Brues. 24.  
 ————— *grenadensis*. Brues. 24.  
 ————— *johnsoni*. Brues. 24.
- Idiophlebia** n. gen. [Tipulidae]. Grünberg. 65.  
 ————— *pallida*. Grünberg. 65.
- Kiefferia** n. gen. [Cecidomyiidae].  
 ————— Kunstler and Chaine. 107.  
 ————— *musae*. Kunstler and Chaine. 107.
- Lagaroceras** n. gen. [Muscidae Acalyptratae]. Becker. 14.  
 ————— *megalops*. Becker. 14.
- LAMPREMPIS** [Empidae].  
 ————— *setigera*. Coquillett. 31.
- Lasiocoonops** n. gen. [Culicidae]. Theobald. 180.  
 ————— *poecilipes*. Theobald. 180.
- Laverania** n. gen. [Culicidae]. Theobald. 178.
- Leptomotopa** n. gen. [Muscidae Acalyptratae]. Becker. 14.  
 ————— *rufifrons*. Becker. 14.
- LIMNOPHILA** [Tipulidae].  
 ————— *costata*. Coquillett. 35.
- LIMOSINA** [Muscidae Acalyptratae].  
 ————— *acrosticalis*. Becker. 14.  
 ————— *octiesetosa*. Becker. 14.
- LIPOTENA** [Hippoboscidae].  
 ————— *gracilis*. Speiser. 170.
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 ————— *armipes*. Becker. 14.  
 ————— *elephantina*. Becker. 14.  
 ————— *halophora*. Becker. 14.  
 ————— *kowarzi*. Becker. 14.  
 ————— *pectinipes*. Becker. 14.  
 ————— *rigida*. Becker. 14.
- LONCHAEA** [Muscidae Acalyptratae].  
 ————— *aristella*. Becker. 14.
- Lutria** n. gen. [Culicidae]. Theobald. 180.
- Macleaya** n. gen. [Culicidae]. Theobald. 175.  
 ————— *tremula*. Theobald. 175.
- Macroptilium** n. gen. [Chironomidae].  
 ————— Becker. 14.  
 ————— *nudum*. Becker. 14.
- MANSONIA** [Culicidae].  
 ————— *anopheloides*. Thomson. 183.  
 ————— *major*. Theobald. 180.
- Melaloncha** n. gen. [Phoridae]. Brues. 24.  
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- Melanocnion** n. gen. [Culicidae].  
 ————— Theobald. 180.  
 ————— *indecorabilis*. Theobald. 180.  
 ————— *luteopleurus*. Theobald. 180.  
 ————— *spissipes*. Theobald. 180.
- MELITHREPTUS** [Syrphidae].  
 ————— *calceolatus*. Becker. 14.
- Meringopherusa** n. gen. [Dolichopidae].  
 ————— Becker. 14.  
 ————— *connexa*. Becker. 14.  
 ————— *separata*. Becker. 14.
- Merisa** n. gen. [Muscidae Acalyptratae].  
 ————— Kertész. 101.  
 ————— *bistrigatus*. Kertész. 101.
- Metachela** n. gen. [Empidae]. Coquillett. 31.
- METOPINA** [Phoridae].  
 ————— *pachycondylae*. Brues. 24.
- Metopostigma** n. gen. [Muscidae Acalyptratae]. Becker. 14.
- Microneurum** n. gen. [Muscidae Acalyptratae]. Becker. 14.  
 ————— *maculifrons*. Becker. 14.
- MICROPHORUS** [Empidae].  
 ————— *gilchirtus*. Coquillett. 31.  
 ————— *obscurus*. Coquillett. 31.
- Mimomyia** n. gen. [Culicidae]. Theobald. 180.  
 ————— *splendens*. Theobald. 180.
- Monorrhiza** n. gen. [Muscidae Acalyptratae]. Kertész. 101.  
 ————— *pictipennis*. Kertész. 101.
- MULIO** [Bombyliidae].  
 ————— *alexandrinus*. Becker. 11, 14.  
 ————— *carmelitensis*. Becker. 11.  
 ————— *claripennis*. Becker. 11.  
 ————— *fratellus*. Becker. 11.  
 ————— *maroccanus*. Becker. 11.  
 ————— *nucleorum*. Becker. 11, 14.  
 ————— *persicanus*. Becker. 11.  
 ————— *tauriacus*. Becker. 11.  
 ————— *transcaspius*. Becker. 11.
- Mycosciara** n. gen. [Mycetophilidae].  
 ————— Kieffer. 104.  
 ————— *brevipalpis*. Kieffer. 104.
- MYOPITES** [Muscidae Acalyptratae].  
 ————— *variofasciata*. Becker. 14.

- MYZOMYIA** [Culicidae].  
 — *albirostris*. Theobald. 180.  
 — *elegans*. Theobald. 180.  
 — *hispaniola*. Theobald. 180.  
 — *leptomeres*. Theobald. 180.  
 — *longipalpis*. Theobald. 180.  
 — *ludlowii*. Theobald. 180.
- MYZORHYNCHUS** [Culicidae].  
 — *albotaeniatus*. Theobald. 180.  
 — *minutus*. Theobald. 180.  
 — *umbrosus*. Theobald. 180.
- NEMOTELUS** [Stratiomyidae].  
 — *albifacies*. Becker. 14.  
 — *dentatus*. Becker. 14.  
 — *marinus*. Becker. 14.  
 — *punctiventris*. Becker. 14.
- NEPHROCERUS** [Pipunculidae].  
 — *daeckei*. Johnson. 93.
- NOTOPHILA** [Muscidae Acalyptratae].  
 — *setigera*. Becker. 14.
- NOTONAUAX** n. gen. [Muscidae Acalyptratae]. Becker. 14.  
 — *favillacea*. Becker. 14.  
 — *maculifrons*. Becker. 14.  
 — *setulosa*. Becker. 14.
- NYCTERIBIA** [Nycteribiidae].  
 — *chlamydophora*. Speiser. 170.
- NYSSORHYNCHUS** [Culicidae].  
 — *karwari*. James. 180.  
 — *nivipes*. Theobald. 176.  
 — *pretoriensis*. Theobald. 180.  
 — *willmori*. Theobald. 180.
- OCHTHERA** [Muscidae Acalyptratae].  
 — *angustitarsis*. Becker. 14.  
 — *pilimana*. Becker. 14.
- OCHTHIPHILA** [Muscidae Acalyptratae].  
 — *inconstans*. Becker. 14.
- OEDALEA** [Empidae].  
 — *pruinosa*. Coquillett. 31.
- OEDENOPS** n. gen. [Muscidae Acalyptratae]. Becker. 14.  
 — *isis*. Becker. 14.
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 — *angustifrons*. Van der Wulp. 187.  
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- OMMATIUS** [Asilidae].  
 — *tibialis*. Ricardo and Theobald. 141.
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 — *robusta*. Van der Wulp. 187.
- OXYNA** [Muscidae Acalyptratae].  
 — *parceguttata*. Becker. 14.
- PACHYGASTER** [Stratiomyidae].  
 — *maculicornis*. Hine. 76.
- PACHYNEURELLA** n. gen. [Phoridae].  
 — Brues. 24.
- PARALIMNA** [Muscidae Acalyptratae].  
 — *decipiens*. Becker. 14.
- PARALLELONEURUM** n. gen. [Dolichopidae].  
 — Becker. 14.  
 — *cilifemoratum*. Becker. 14.
- PEGOMYIA** [Muscidae Acalyptratae].  
 — *nitidula*. Coquillett. 88.
- PELOREMPIS** n. gen. [Culicidae]. Johannsen. 87.  
 — *americana*. Johannsen. 87.
- PEYERIMHOFFIA** n. gen. [Mycetophilidae].  
 — Kieffer. 104.  
 — *aptera*. Kieffer. 104.  
 — *brachyptera*. Kieffer. 104.
- PHONIOMYIA** n. gen. [Culicidae]. Theobald. 180.
- PHORA** [Phoridae].  
 — *cata*. Melander and Brues. 126.  
 — *comstocki*. Brues. 24.  
 — *divaricata* var. *perplexa* n. var. Brues. 24.  
 — *fratercula*. Brues. 24.  
 — *halictorum*. Melander and Brues. 126.  
 — *multiseriata*. Brues. 24.  
 — *nitidifrons*. Brues. 24.  
 — *olympiae*. Brues. 24.  
 — *rostrata*. Melander and Brues. 126.  
 — *scutellata*. Brues. 24.
- PHORANTHA** [Muscidae Acalyptratae].  
 — *bridicell*. Hine. 76.
- PIPUNCULUS** [Pipunculidae].  
 — *aeneiventris*. Kertész. 100.  
 — *angustipennis*. Kertész. 100.  
 — *beckeri*. Kertész. 100.  
 — *biroi*. Kertész. 100.  
 — *fumipennis*. Kertész. 100.  
 — *pallipes*. Johnson. 92.  
 — *singalensis*. Kertész. 100.

- PROMACLIUS** [Asilidae].  
 — *sokotrae*. Ricardo and Theobald. 141.
- Psallidotus** n. gen. [Muscidae Acalyptratae]. Becker. 14.  
 — *prima*. Becker. 14.
- Pseudodoris** n. gen. [Syrphidae]. Becker. 14.  
 — *nigricollis*. Becker. 14.
- PSILOCEPHALA** [Therevidae].  
 — *albohirta*. Ricardo and Theobald. 141.  
 — *nigrifrons*. Becker. 14.
- PSILOPUS** [Dolichopidae].  
 — *adumbratus*. Becker. 14.
- PYRETOPHORUS** [Culicidae].  
 — *chaudoyei*. Theobald. 180.  
 — *jeyporensis*. Theobald. 180.  
 — *marshallii*. Theobald. 180.  
 — *palestinensis*. Theobald. 180.
- RHACHIGERUS** [Leptidae].  
 — *nitidus*. Johnson. 91.
- RHICNOËSSA** [Muscidae Acalyptratae].  
 — *pictipes*. Becker. 14.
- Rossia** n. gen. [Culicidae]. Theobald. 178.
- Runchomyia** n. gen. [Culicidae]. Theobald. 180.  
 — *frontosa*. Theobald. 180.
- RYPHOLOPHUS** [Tipulidae].  
 — *cockerellii*. Coquillett. 35.
- SABETHES** [Culicidae].  
 — *albiprivus*. Theobald. 180.  
 — *lulzii*. Theobald. 180.
- Sabethoides** n. gen. [Culicidae]. Theobald. 180.  
 — *confusus*. Theobald. 180.
- SCATELLA** [Muscidae Acalyptratae].  
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 — *farinae*. Becker. 14.
- SCENOPINUS** [Scenopinidae].  
 — *lucidus*. Becker. 14.
- Schistopterum** n. gen. [Muscidae Acalyptratae]. Becker. 14.  
 — *moebiusi*. Becker. 14.
- Schistostoma** n. gen. [Empidae]. Becker. 14.  
 — *eremiata*. Becker. 14.
- S. IARA** [Mycetophilidae].  
 — *kairensis*. Becker. 14.  
 — *membranigera*. Kieffer. 104.
- SCIOPHILA** [Mycetophilidae].  
 — *pulehra*. Johannsen. 85, 119.
- Scoliocephalus** n. gen. [Muscidae Acalyptratae]. Becker. 14.  
 — *pallidisetis*. Becker. 14.
- Scolioptthalmus** n. gen. [Muscidae Acalyptratae]. Becker. 14.  
 — *trapezoides*. Becker. 14.
- Szsis** [Muscidae Acalyptratae].  
 — *fissa*. Becker. 14.  
 — *fragilis*. Becker. 14.  
 — *hirtipes*. Becker. 14.  
 — *niveipennis*. Becker. 14.  
 — *tridens*. Becker. 14.
- SIMULIUM** [Simuliidae].  
 — *damnosum*. Theobald. 181.  
 — *griseicollis*. Becker. 14.
- Skusea** n. gen. [Culicidae]. Theobald. 180.  
 — *diurna*. Theobald. 176.  
 — *funerea*. Theobald. 180.  
 — *multiflex*. Theobald. 180.
- STEGOMYIA** [Culicidae].  
 — *albocephala*. Theobald. 180.  
 — *amesii*. Ludlow. 116.  
 — *nigricephala*. Theobald. 180.  
 — *nivea*. Ludlow. 116.  
 — *nivea*. Theobald. 180.  
 — *punctolateralis*. Theobald. 175.  
 — *scutellaris*: *samarensis* n. subsp. Ludlow. 116.
- Stenophthalmus** n. gen. [Muscidae Acalyptratae]. Becker. 14.  
 — *ocellatus*. Becker. 14.
- Stethomyia** n. gen. [Culicidae]. Theobald. 178, 180.  
 — *fragilis*. Theobald. 176.  
 — *nimba*. Theobald. 180.
- STETHOPATHUS** [Phoridae].  
 — *occidentalis*. Melander and Brues. 126.
- STICHOPOGON** [Asilidae].  
 — *lucidiventris*. Becker. 14.
- SYMPHROBOMYIA** [Leptidae].  
 — *cinerea*. Johnson. 91.
- Syneura** n. gen. [Phoridae]. Brues. 24.
- SYNTORMON** [Dolichopidae].  
 — *triangulipes*. Becker. 14.  
 — *uncitarsis*. Becker. 14.

- SYRITTA** [Syrphidae].  
 — *subtilis*. Becker. 14.
- SYRPHUS** [Syrphidae].  
 — *longicornis*. Becker. 14.
- SYSTOCHUS** [Bombyliidae].  
 — *retrogradus*. Becker. 14.
- TACHYDROMIA** [Empidae].  
 — *anomalicerca*. Becker. 14.  
 — *approximata*. Becker. 14.  
 — *immaculata*. Becker. 14.  
 — *lata*. Coquillett. 31.  
 — *ostiorum*. Becker. 14.  
 — *pictitarsis*. Becker. 14.  
 — *varipennis*. Coquillett. 31.
- TACHYPEZA** [Empidae].  
 — *pruinosa*. Coquillett. 31.
- TACHYTRECHUS** [Dolichopidae].  
 — *salinarius*. Becker. 14.
- TAENIORHYNCHUS** [Culicidae].  
 — *arribalzaga*. Theobald. 180.  
 — *fuscopennatus*. Theobald. 180.  
 — *ochraceus*. Theobald. 180.
- TANITUS** [Chironomidae].  
 — *dyari*. Coquillett. 33.
- TEPHRONOTA** [Muscidae Acalyptatrae].  
 — *canadensis*. Johnson. 90.
- TETANOCERA** [Muscidae Acalyptatrae].  
 — *alpestris*. Hendl. 72.
- THALASSOMYIA** [Chironomidae].  
 — *obscura*. Johannsen. 87.
- THINOPHILUS** [Dolichopidae].  
 — *indigenus*. Becker. 14.  
 — *modestus*. Becker. 14.  
 — *quadrimaculatus*. Becker. 14.
- THRYPTOCERA** [Muscidae Acalyptatrae].  
 — *pomonellae*. Mokřeckij. 127.
- TOXORHYNCHITES** [Culicidae].  
 — *marshalli*. Theobald. 180.
- TRACHINISCUS** n. gen. [Muscidae Acalyptatrae]. Kertész. 98.  
 — *cyaneiventris*. Kertész. 98.
- TRIGONOCERA** n. gen. [Dolichopidae].  
 — Becker. 14.  
 — *riosa*. Becker. 14.
- TRIMICRA** [Tipulidae].  
 — *strasseni*. Enderlein. 49.
- TRINEURA** [Phoridae].  
 — *montana*. Brues. 24.
- TROCHILODES** n. gen. [Muscidae Acalyptatrae]. Coquillett. 88.  
 — *skinneri*. Coquillett. 88.

- TRYPETA** [Muscidae Acalyptatrae].  
 — *incompleta*. Becker. 14.  
 — *planiscutellata*. Becker. 14.
- URANOTAENIA** [Culicidae].  
 — *alba*. Theobald. 180.  
 — *apicalis*. Theobald. 180.  
 — *pallidoventer*. Theobald. 180.
- Varichaeta** n. nom. [Muscidae Acalyptatrae]. Speiser. 169.
- Verrallina** n. gen. [Culicidae]. Theobald. 180.
- XYLOMYIA** [Leptidae].  
 — *aterrima*. Johnson. 91.
- ZONOSEMA** [Muscidae Acalyptatrae].  
 — (?) *dubia*. Johnson. 88.

## 4403-4431 LEPIDOPTERA.

## TITLES.

- Adkin, R. E.** *Pyrameis cardui*, *Plusia gamma* and *Nemophila noctuella*. Entomologist, London, **36**, 1903, (274-276). [4431]. 1
- Aimé, A.** La noctuelle du frêne. Nature, Paris, **30**, (2<sup>e</sup> sem.), 1902, (314-315). [4419 4431]. 2
- Aitken, E. H. and Comber, E.** A list of the butterflies of the Konkani. Bombay, J. Nat. Hist. Soc., **15**, 1903, (42-55). [4431 4427 ef]. 3
- Aldrich, J. M.** *Orneodes hexodactyla* [at Morcow, Idaho]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (156). [4427 gi 4431]. 4
- André, E.** Sur le son émis par les chenilles. Feuille jeunes natural., Paris, (sér. 4), **33**, (224). [4419]. 5
- Andrews.** Dark variety of *Catocala nupta*. Ent. Mag., London, **39**, 1903, (66). [4423]. 6
- Auberjomois, Maurice.** Note sur l'hybride *Samia cecropia* L. ♂ × *Samia ceanothi* Behr ♀. J. natural., Mâcon, **2**, 1902, (90-96, av. 2 pls.). [4431]. 7
- Aurivillius, Chr[istopher].** Diagnosen neuer Lepidopteren aus Afrika. 6. Entomol. Tidskr., Stockholm, **22**, 1901, (113-128, with pl.). [4427 f 4431]. 8



- Bachmetjew, P.** Ein neu-entdecktes Schutzmittel bei Schmetterlingspuppen gegen Kälte. Soc. Entomol., Zürich, 16, 1902, (161-162). [4419]. 9
- Ueber die Anzahl der Augen auf der Unterseite der Hinterflügel von *Epinephala jurtina* L. Allg. Zs. Ent., Neudamm, 8, 1903, (253-256). [4431 4423]. 10
- Zur Variabilität der Flügellänge von *Aporia crataegi* L. in Sophia (Bulgarien). Allg. Zs. Ent., Neudamm, 8, 1903, (389-395, 470-494). [4431 4423]. 11
- Die Flügellänge von *Erebia euryale* Esp. 1903 in Sofia. Insektenbörse, Leipzig, 20, 1903, (364-365). [4423 4431]. 12
- Ball, Fr.** Notes sur l'effet de la température sur les chrysalides. Bruxelles, Ann. Soc. ent. Belgique, 45, 1901, (385-388). [4411]. 13
- Bankes.** [Sugar trap for Lepidoptera.] Ent. Mag., London, 39, 1903, (171). [4403]. 14
- Bankes, E. M.** *Lithosia deplana*, Esp. var. *unicolor* n. var. Ent. Mag., London, 39, 1903, (56-57). [4431]. 15
- Bankes, E. R.** Descriptions of the larva and pupa of *Mompha conturbatella* H. B. Ent. Mag., London, 39, 1903, (133-136). [4431]. 16
- Barrett, C. G.** *Nephopteryx similella* Zinck. A new British Phycid. Ent. Mag., London, 39, 1903, (1). [4427 de 4431]. 17
- *Acrobasis verrucella* Hb., and *rubrotibiella* F. R., as British insects. Ent. Mag., London, 39, 1903, (164-166). [4427 de 4431]. 18
- *Tephrosia consonaria*, melanism. Ent. Mag., London, 39, 1903, (200). [4423]. 19
- An experience in interbreeding *Clostera anachoreta*. Ent. Mag., London, 39, 1903, (215-216). [4423]. 20
- The Lepidoptera of the British islands: Pts. 95-106. Being vol. ix, (1-454, pls. 377-424) [carrying the work to the end of the *Pyralidae*]. [4427 de 4403]. 21
- Barrett, F.** Further notes on South African Lepidoptera. Ent. Mag., London, 39, 1903, (35-38, 76-83, 138-143). [4427 fg 4431]. 22
- Barrett, O. W.** Cheap tropical American butterflies [due to abundance]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (238-240). [4403]. 23
- Tropical butterflies. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (90). [4427 h]. 24
- Bartel, Max.** Lepidopteren des südlichen Urals, gesammelt von Herrn Julius Tief. D. ent. Zs. Iris, Berlin, 15, (1902), 1903, (183-230). [4427 db 4431]. 25
- Neue aethiopische *Arctiidae* der Sammlung des kgl. Museums für Naturkunde in Berlin. D. ent. Zs. Iris, Berlin, 16, 1903, (170-214). [4431]. 26
- Zwei neue paläarktische Lepidopteren. D. ent. Zs. Iris, Berlin, 16, 1903, (215-220). [4431]. 27
- Bate, Miss D. M. A.** Notes on the resting attitude of *Zamachra flabellaria*. Entomologist, London, 36, 1903, (106). [4419 4431]. 28
- Battley, A. M.** Notes on the life-history of *Aporia crataegi*. Entomologist, London, 36, 1903, (249-251). [4415 4431]. 29
- Bell, R. G. & Kellogg, V. L.** 30
- Belliard, H.** Contribution à l'étude de la formation et de la nature de la matière colorante des ailes de lépidoptères (d'après les travaux récents et spécialement ceux de la comtesse de Linden). Feuille jeunes natural., Paris, (sér. 4), 33, 1903, (141-146, 161-163). [4411]. 31
- Bengtsson, Simon.** Investigations on *Lymantria monacha* and the scene of its ravages in the provinces Södermanland and Östergötland in the year 1900. (Swedish) Entomol. Tidskr., Stockholm, 22, 1901, (145-157). [4419 4431]. 32
- Berlese, Antonio.** Contro la *Cochylis*. Bollettino di Entomologia agraria, Padova, 9, 1902, (82-86, con. fig.). [4460 4403 4431]. 33
- Best, D.** Excursion to Wandong [Victoria]. Vict. Nat., Melbourne, 20, 1903, (103-104). [4427 if 4431 4827 if 4831]. 34

**Bethune-Baker, G. T.** A revision of the Amblopidia group of the butterflies of the family *Lycaenidae*. London, Trans. Ent. Soc., 17, 1903, (1-164, pls. -V). [4431]. 35

— On new species of *Lycaenidae* from West Africa. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (324-334). [4427 fd 4431]. 36

— A new species of *Arhopala* from British New Guinea and Singapore. Ent. Mag., London, 39, 1903, (217-218). [4427 ia eg 4431]. 37

**Beutenmüller, William.** Descriptive catalogue of the *Noctuidae* found within fifty miles of New York City. New York, N.Y., Bull. Amer. Mus. Nat. Hist., 14, 1901, (229-312, with 4 pls.). [4427 gg 4431]. 38

— Description of a new moth [*Olene montana* n. sp.] from North Carolina. New York, N.Y., Bull. Amer. Mus. Nat. Hist., 19, 1903, (585-586). Separate. 24.5 cm. [4427 gh 4431]. 39

— Notes on some species of *Catocala*. New York, N.Y., Bull. Amer. Mus. Nat. Hist., 19, 1903, (505-510). Separate. 24.5 cm. [4431]. 40

**Bilson, James E.** [*Vanessa milberti* in Providence, R. I.]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (57). [4427 gg 4431]. 41

**Bloomfield, E. N.** Suffolk Lepidoptera in 1902. Ent. Mag., London, 39, 1903, (88-89). [4427 de 4403]. 42

**Boas, J. E. V.** Observations on *Bombyx pini* in Norway 1903. (Norw.) Forstl. Tidssk., Kristiania, 2, 1903, (107-112, 2 pls.). [4427 da]. 43

**Bode.** [*Melipotae aethalia* ab.] Berliner ent. Zs., 48, 1903, (25). [4431]. 44

**Bordas, L.** Les glandes mandibulaires des larves de lépidoptères. Paris, C. R. Acad. sci., 136, 1903, (1273-1275). [4407 4415]. 45

— Les glandes salivaires de la nymphe de *Sphinx convolvuli* L. Paris, C. R. soc. biol., 55, 1903, (141-143). [4407 4415 4431]. 46

**Brabant, D.** Sur le son émis par les chenilles. Feuille jeunes natural., Paris, (ser. 4), 33, 1903, (207). [4419]. 47

**Brascassat, M.** Observations lépidoptérologiques. *Epinephele janira*. L.

*Rhodocera cleopatra* L. — *Chelonia pudica* Esp. Feuille jeunes natural., Paris, (ser. 4), 33, 1903, (64). [4431 4427 df 4423 4415]. 48

**Bray, E.** Lépidoptères capturés aux environs de Virton. Bruxelles, Ann. Soc. Ent. Belgique, 46, 1902, (143-146). [4403 4427 df]. 49

**Brecher.** Beobachtungen über den Frass des Kiefernspanners im Herbst 1900 und Vorbeugung. D. Forstztg., Neudamm, 16, 1901, (617-620). [4419 4431]. 50

**Bredin, G.** Zwei neue Morphiden. Soc. Entomol., Zurich, 17, 1903, (153-154). [4427 hc ed 4431]. 51

**Brimley, C. S. and Sherman, Franklin, jun.** A morning's collection at Raleigh, N. C. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (230-232). [4427 gh]. 52

**Britton, W. E.** The apple-tree tent caterpillar. [*Chisocampa americana*]. Agric. Exp. Sta., Connecticut, New Haven, Bull., No. 139, 1902; (12, with 3 pls., 3 figs.). 23 cm.; [review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., 14, 1902, (371-372). [4419 4431]. 53

**Brown.** Eclosion hors saison de *Mania typica*. Bordeaux, Actes soc. linn., 58, 1903, (Proc.-verb., CLXXXVII-CLXXXVIII). [4423]. 54

— *Toxocampa pastinum* des environs de Bordeaux. Bordeaux, Actes soc. linn., 58, 1903, (Proc.-verb., CLXXXIX). [4427 df 4419]. 55

— Note sur quelques Lépidoptères de nos environs [de Bordeaux]. Bordeaux, Actes soc. linn., 58, 1903, (Proc.-verb., CCLVII-CCLVIII). [4431 4427 df]. 56

**Brown, H. H.** *Callophrys (Thecla) rubi* (Linn.) in Fife. Ann. Scot. Nat. Hist., Edinburgh, 1903, (187). [4427 de 4431]. 57

— Butterflies and dragonflies in Banffshire. Ann. Scot. Nat. Hist., Edinburgh, 1903, (247). [3827 de 4427 de]. 58

**Browne, C. S.** A list of the Lepidoptera of the island of Capri, with a few notes. Entomologist, London, 36, 1903, (254-256, 284-286, 307-309). [4403 4427 dh]. 59

**Burkill, J. H. c. Willis, J. C.**

**Burrows, C. R. N.** Notes on *Phorodesma (Comibaena) pustulata*, Hufn. Ent. Rec., London, 15, 1903, (171-177, 203-205, pl. VII). [4431]. 61

**[Busack, E.]** Uebersicht der von Herrn E. Busack bei Schwerin und Waren gefangenen Grossschmetterlinge. [Mit Vorwort von M. Gillmer.] Güstrow, Arch. Ver. Natg., 57, Abt. 1, 1903, (105-127). [4427 dc]. 62

**Busck, August.** A revision of the American moths of the family *Gelechiidae*, with descriptions of new species. Washington, D.C., Smithsonian Inst., Nation. Mus. Proc., 25, 1903, (767-938, with pl.). Separate. 24.5 cm. [4427 gh 4431]. 63

Notes on Brackenridge Clemens types of Tineina [nn. gen. *Brackenridgia* and *Greya* and n. sp. in *Lithocolletis*]. Washington, D.C., Proc. Ent. Soc., 5, 1903, (181-220). [4431]. 64

Notes on the *Cerostoma* group of *Yponomeutidae*, with descriptions of new North American species from western United States. New York, N.Y., J. Ent. Soc., 11, 1903, (45-59). [4427 gi 4431]. 65

On the generic name of the Codling moth [*Carpocapsa*]. New York, N.Y., J. Ent. Soc., 11, 1903, (106-111). [4431]. 66

**Caillon, F.** Chenilles de *Papilio machaon* exhalant une odeur de musc. Feuille jeunes natural., Paris, (sér. 4), 34, 1903, (38). [4431 4419]. 67

**Oaland, M[arinus].** Einige Mitteilungen über *Bombyx populi* L. (Holländisch) 's Gravenhage, Tijdschr. Ent., 46, [1903], (65-70). [4415 4431]. 68

**Capper, C.** Occurrence of *Thalera fimbrialis* Scop. in Great Britain. Ent. Mag., London, 39, 1903, (216). [4427 de 4431]. 69

**Östverlikov, S. S.** *Pyrrhia exprimens* Walker = *exilliger* Clor. = *aeoniti* Hoeltzermann dans la region paléarctique. (Russ.) Rev. Russ. Ent., Jaroslavl, 3, 1903, (384-385). [4427 db ea]. 70

**Ozard, Léonce.** Educations de *Bombicis* séricigènes en 1902. Paris, Bul. soc. nat. acclim., 49, 1902, (382-386). [4419 4431]. 71

**Chapman, T. A.** [Homeochromatism in European butterflies.] London, Proc. Ent. Soc., 1903, (42-44). [4407]. 72

Variation of *Chrysophanus phlaeas*. London, Proc. Ent. Soc., 1903, (62). [4423]. 73

On winglessness in winter moths. Ent. Rec., London, 15, 1903, (43-46). [4419]. 74

On *Orgyia aurolimbata* Gn. at Bejar. Ent. Rec., London, 15, 1903, (113-118, pls. IV, V). [4419 4431]. 75

The European *Orgyias*: their specialisation in habits and structure. Ent. Rec., London, 15, 1903, (169-171, with pls.). [4419 4427 de 4431]. 76

A new Phalacropterygid species and genus from Spain. *Pyropsyche moncaunella*. Ent. Rec., London, 15, 1903, (324-330). [4427 dg 4431]. 77

**Ohntenden, F[rank] H[urlbut].** The fall army worm [*Laphygma frugiperde*] [with bibliography] and the variegated cutworm [*Peridroma saucia*]. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. 29, 1901, (64). 23 cm. [4419 4431]. 78

The green clover worm [*Plathypena scabra* Fab.]. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. 30, 1901, (45-50). [4431 4419]. 79

**Chrétien, P.** La *Stagmatophora divitella* Cst. n'est pas cécidogène. Paris Bull. soc. ent., 1902, (261-264). [4431 4419]. 80

Note sur la *Cnephasia sciaphila laetana* Styr. Naturaliste, Paris, (sér. 2), 23, 1903, (11-12). [4431]. 81

Histoire naturelle de l'*Eupithecia liguriata* Mill. Naturaliste, Paris, (sér. 2), 24, 1902, (239-241). [4415 4419 4431]. 82

La *Conchylis austriana*, nouvelle *Conchylis* cécidogène. Naturaliste, Paris, (sér. 2), 24, 1902, (257-258). [4431 4419]. 83

Les *Erebia* de France. Naturaliste, Paris, (sér. 2), 25, 1903, (71-72). [4431 4427 df]. 84

Clarke, W. E. *Vanessa cardui* and other insects at the Kentish Knock lightship. Ent. Mag., London, **39**, 1903, (289-290). [4419 4431]. 85

Clarke, W. T. The potato worm in California (*Gelechia operculella*). Agric. Exp. Sta., California, Berkeley, Bull. No. **135**, 1901, (30, with 10 figs.). 23 cm.; [review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., **13**, 1902, (765-766). [4419 4427 gi 4431]. 86

Clément, A. L. La teigne du crin. Nature, Paris, **30**, (2<sup>e</sup> sem.), 1902, (251-252). [4419 4431]. 87

Cockerell, T[heodoro] D[ru] A[lison]. The blackberry crown-borer [*Bembecia marginata*] in New Mexico. "Notes from the New Mexico Biological Station 3." Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (100-101). [4427 gi 4431]. 88

——— *Euhagena* [*Euhagena*] *nebraskae* Hy. Edw. [at Las Vegas, N.M.] Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (303). Correction, *ib.*, **14**, 1903, (29). [4427 gi 4431]. 89

——— *Aellopas fadus* var. *titan* Cram. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (326). [4427 gi 4431]. 90

——— *Lepidotrama* n. nom. for *Trama* Harvey (not *Trama* Heyd.). Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (182). [4431]. 91

Colthrup. [Birds attacking butterflies]. Entomologist, London, **36**, 1903, (173). [4419 5819]. 92

Comber, E. v. Aitken, E. H.

Comstock, G. F. A list of Lepidoptera found in the Adirondack Mts. [with list of other insects]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (197-200). [2427 gg 4427 gg]. 93

Comstock, John and Comstock, Hurd. A trip to lake Josephine, Fla., [with list of Rhopalocera taken]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (75-77). [4427 gh 4431]. 94

Comstock, Hurd v. Comstock, John.

Conte, A. v. Levrat, D.

Cook, John H. Out of due season [Emergence of Lepidoptera]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (142-144). [4423]. 95

Coulon. *Saturnia pyri*. Feuille jeunes natural., Par.s, (sér. 4), **35**, 1903, (38). [4431 4419]. 96

——— La chasse aux papillons dans la région d'Elbeuf. Elbeuf, Bul. soc. sci. nat., **20**, 1901, [1902], (61-67). [4419 4427 df]. 97

Courvoisier, L. G. Ueber Aberrationen der Lycaeniden. Schaffhausen, Mitt. Schweiz. Entomol. Ges., **11**, 1903, (18-25, av. 1 pl.). [4423 4431]. 98

Coutagne, G. Recherches expérimentales sur l'hérédité chez les vers à soie. Bul. sci. France Belgique, Paris, **37**, 1903, (1-194, av. fig. et 9 pls.). [0223 4423]. 99

Croft. [Colour of butterflies wings, diffraction of pigment.] Nature, London, **65**, 1903, (391). [4407]. 100

Crombrugge de Ploquendaels, de. Note sur quelques microlépidoptères de la faune belge. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (100-104); **46**, 1902, (461-483). [4431]. 101

——— Note sur quelques microlépidoptères nouvellement observés en Belgique. Bruxelles, Ann. Soc. ent. Belgique, **46**, 1902, (57-58). [4427 dd]. 102

——— Note sur quelques lépidoptères de la faune belge et sur leur larves. Namur, Rev. Soc. ent., **1903**, (52-55). [4403]. 103

Curtis. [Bird destroying butterflies.] Entomologist, London, **36**, 1903, (68). [4419 5819]. 104

Daecke, E. The larva of *Phiprosopus callitrichoides*. New York, N.Y., J. Ent. Soc., **11**, 1903, (105). [4431]. 105

Dale, C. W. Historical notes on *Lycaena arion* in Britain. Ent. Mag., London, **33**, 1903, (4-5). [4427 de 4431]. 106

——— Historical notes on *Chrysophanus dispar*. Ent. Mag., London, **39**, 1903, (147-148). [4431]. 107

Dammer, Udo. Zur Seidenbaufrage. Tropenpflanzer, Berlin, **7**, 1903, (72-79). [4403 4431]. 108

Dankler, M. Schutzfärbung der Schmetterlingspuppen. Natur u. Offenb., Münster, **49**, 1903, (698-699). [4419]. 109

Day, G. O. A list of Lepidoptera found in the Counties of Cheshire,

Flintshire, Denbighshire, Carnarvonshire and Anglesea. Assisted by I. Arkle, Herbert Dobie and Robert Newstead. Chester, Ann. Rep. Soc. Nat. Sci., No. 5, 1903, (viii + 120). [4427 de]. 110

**Denton, William D.** Tropical butterflies. [Scarcity in South America]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (316-317). [4403]. 111

**Dewitz, J.** Ueber die Herkunft des Farbstoffes und des Materials der Lepidopterenkokons. Zool. Anz., Leipzig, 27, 1903, (161-168). [4415 4411]. 112

**Dietze, Karl.** Beiträge zur Kenntnis der Eupitheciiden. D. ent. Zs. Iris, Berlin, 14, (1901), 1902, (251-264, mit 1 Taf.). [4431]. 113

— Von der spanischen zur italienischen Mittelmeergrenze. Sammel-tage in Südrankreich; nebst Bericht über die vorgefundenen Eupitheciiden. D. ent. Zs. Iris, Berlin, 15, (1902), 1903, (231-268). [4427 df 4431]. 114

**Disqué, H.** Verzeichniss der in der Umgegend von Speyer vorkommenden Kleinschmetterlinge. (Forts.) D. ent. Zs. Iris, Berlin, 14, (1901), 1902, (197-228). Nachtrag dazu: Ib., 15, (1902), 1903, (343). [4427 de]. 115

— Verzeichniss der in der Pfalz vorkommenden, aber bisher noch nicht bei Speyer aufgefundenen Kleinschmetterlinge. D. ent. Zs. Iris, Berlin, 14, (1901), 1902, (229-250). [4427 de]. 116

**Distant, W. L.** Animal sense perceptions. Zoologist, London, (Ser. 4), 6, 1902, (161-178). [2419 6019 5819 4419]. 117

— Insecta transvaaliensia, Pt. iv, (81-96, pls. VII-VIII). [4427 fg 4431]. 118

**Dixey, F. A. D.** On Lepidoptera from the White Nile, collected by Mr. W. L. S. Loat, F.Z.S.; together with further notes on seasonal dimorphism in butterflies. London, Trans. Ent. Soc., 1903, (141-163, pl. VII). [4423 4427 fb 4431]. 119

**Dod, F. H. Wolley.** Pests and grease. [Lepidoptera collections]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (50-53). [4403]. 120

**Dognin, Paul.** Hétérocères nouveaux de l'Amérique du Sud. Bruxelles, Ann.

Soc. ent. Belgique, 45, 1901, (173-189); 46, 1902, (226-233, 335-350, 473-480). [4427 h 4431]. 121

**Dolleschall, H.** *Zygaena ochsenheimeri*. [Selbständige Art. Ferner Hybrid von *Z. minos* ♀ und *Syntomis phegea* ♂]. Soc. Entomol., Zürich, 17, 1902, (121). [4423 4431]. 122

**Dollman, J. C.** Breeding cage for pupae. Ent. Rec., London, 15, 1903, (7, with pl.). [4403]. 123

— Notes on the eggs, larva, cocoon and female of *Orgyia splendida*. Ent. Rec., London, 15, 1903, (283-284). [4415 4431]. 124

**Doncaster, L.** Mendel's law of heredity in insects. Ent. Rec., London, 15, 1903, (142-144). [4423 0223]. 125

**Dorr, Emile.** Rareté des lépidoptères. Abondance de Parasites. Feuille jeunes natural., Paris, (ser. 4), 34, 1903, (38). [4219 4419 4619]. 126

**Douglas, J.** Some account of the larvae of *Poecilocampa populi*. Entomologist, London, 36, 1903, (13). [4415 4431]. 127

**Druce, Herbert.** Descriptions of some new species of Lepidoptera. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (196-203). [4431]. 128

— Descriptions of some new species of Lepidoptera from tropical S. America, and one from North Australia. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (220-222). [4427 h ic 4431]. 129

**Druce, H. H. C. J.** Descriptions of new species of West African *Lycenidae*. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (69-71). [4427 fd 4431]. 130

— Description of a new species of African *Hesperinae*. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (636). [4427 f 4431]. 131

**Dudgeon, G. C., Elwes, H. J. and Hampson, Sir George.** A Catalogue of the Heterocera of Sikhim and Bhutan. Bombay, J. Nat. Hist. Soc., 14, 1903, (761-763); 15, 1903, (319-326). [4427 ef 4431]. 132

**Dufour, J.** La Pyrale. Chron. Agric., Lausanne, 15, 1902, (319-328, av. 4 Figs.). [4419 4431]. 133

- Dufour, J.** *Pyræle et gribouri*. [*Eumolpe*]. Chron. Agric., Lausanne, **15**, 1902, (459-462, 2 Figs.). [4419 4819]. 134
- Dupont, L.** *Insectes du Jardin (Mont-Blanc)*. Elbeuf, Bul. soc. étud. sci. nat., **20**, 1901, [1902], (41). [4427 *df di* 4431 4827 *df di* 4831]. 135
- *Les Argynnydes de la Normandie*. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (80-81). [4419 4427 *df* 4431]. 136
- Dupuy, G.** *Rhodocera cleopatra* dans les Charentes. Question. Feuille jeunes natural., Paris, (sér. 4), **33**, 1902, (9-10). [4427 *df* 4431]. 137
- *Les Argynnydes de la Charente, des Deux-Sèvres, de la Dordogne et de la Gironde*. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (196-198). [4431 4427 *df* 4419]. 138
- Durrant, J.** On a new genus of Tineid moths. Calcutta, Ind. Mus. Notes, **5**, 1903, (92). [4431]. 139
- Dyar, Harrison G[ray]**. Synoptic table of the North American species of *Chionobas*. Washington, D.C., Proc. Ent. Soc., **5**, 1902, (42). [4427 *g* 4431]. 140
- *Notes on Arachnis dilecta* Bois. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (94). [4431]. 141
- *Note on a Californian fruit worm [Vitula serratilimella]*. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (104). [4431]. 142
- *Synopsis of the North American species of Erebia*. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (129-130). [4427 *g* 4431]. 143
- *Synopsis of the North American species of Brenthis*. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (130-131). [4427 *g* 4431]. 144
- *The life history of a second Epiplemid [Callizia amorata Pack]*. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (131-133). [4431]. 145
- *Some recent work in North American Lepidoptera*. [Annual address of President.] Washington, D.C., Proc. Ent. Soc., **5**, 1903, (167-173). [4403 4427 *g*]. 146
- *A new genus and species of Geometridae [Hulstina terlineata]*. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (178-179). [4431]. 147
- Dyar, Harrison G[ray]**. *Note on the North American white-marked species of Eucosma*. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (179-180). [4427 *g* 4431]. 148
- *List of Lepidoptera taken at Williams, Arizona, by Messrs. Schwarz and Barber*. 1. Papilionoidea, Sphingoidea, Bombycoidea, Tineoidea (in part). Washington, D.C., Proc. Ent. Soc., **5**, 1903, (223-232). [4427 *gi* 4431]. 149
- *Note on Crambus offsetalis* Hulst and allied forms (*Evetria neomexicana*, n. sp.). Washington, D.C., Proc. Ent. Soc., **5**, 1903, (285-286). [4431]. 150
- *New North American Lepidoptera with notes on larvae*. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (290-298). [4427 *gf* 4431]. 151
- *A note on Pyrausta ochosalis* Fitch, M.S. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (305). [4431]. 152
- *Note on a wrongly identified species of Tortricidae [Phthinosophus indentatus* n. gen. and sp.]. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (306-307). [4431]. 153
- *A review of the North American species of the Lepidopterous family Anthroceridae*, [with bibliography]. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (322-329). [4427 *gf* 4431]. 154
- *The Psychophora mix-up, 1 [referred to Geometridae]*. Philadelphia, Pa., Ent. News Acad. Nat. [Sci.], **13**, 1902, (191-192). [4431]. 155
- *The Psychophora mix-up, 2 [Scimmeria* n. gen.]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (193-196). [4431]. 156
- *A review of the North American species of Pronuba and Prodorus*. New York, N.Y., J. Ent. Soc., **11**, 1903, (102-104). [4427 *g* 4431]. 157
- *The real larva of Xanthopastis timais* Cramer. New York, N.Y., J. Ent. Soc., **11**, 1903, (104). [4431]. 158

**Dziuryski, Clemens.** Neue Zygaenen-Aberrationen, nebst kleinen Bemerkungen über bereits bekannte Aberrationen. D. ent. Zs. Iris, Berlin, **15**, (1902), 1903, (335-338). [4423 4431]. 159

——— *Zygaena angelica* O. ab. "confluens" mihl. Wien, JahrBer. Entom. Ver., **11**, (1900), 1902, (117). [4431]. 160

**Egorov, N. M.** Die Lepidopteren am nördlichen Abhange des centralen Kaukasus. (Russ.) Tiflis, Izv. Kav. Otd. Russ. Geogr. Obsč., **16**, 1, 1903, (9-24). [4427 db]. 161

**Ellsworth, Addison.** Notes on butterflies [*Colias philodice* and *Papilio asterias*] and description of an aberration [*Melitaea streckeri* n. sp.]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (103-104). [4431]. 162

**Elwes, H. J.** On a collection of Lepidoptera from Arctic America. London, Trans. ent. Soc., **1903**, (239-243, pl. IX). [4423 4427 g 4431]. 163

——— The butterflies of Chile. London, Trans. Ent. Soc., **1903**, (263-301, pls. XII-XIV). [4427 hk 4431]. 164

——— c. Dudgeon, G. C.

**Enderlein, Günther.** Die Landarthropoden der von der Tiefsee-Expedition besuchten Inseln. I. Die Insekten und Arachnoiden der Kerguelen. II. Die Landarthropoden der antarktischen Inseln St. Paul und Neu-Amsterdam. (Wissenschaftliche Ergebnisse der deutschen Tiefsee-Expedition, Bd 3, Lfg 7.). Jena, 1903, (197-270, mit 10 Taf.) 35 cm. [4427 oc mb 2431 3631 4231 4431]. 165

**Evans, W. D. v. Leslie, G.**

**Evers, J.** Beitrag zur Biographie von *Argynnis paphia* L. Insektenbörse, Leipzig, **20**, 1903, (100). [4431]. 166

**Faes, H[enri].** Une invasion de chenilles du chou. Lausanne, Bul. Soc. Sci. Nat., **38**, 1902, (XIX); Arch. Sci. Phys., Genève, (sér. 4), **13**, 1902, (602). [4419 4431]. 167

——— La chenille du chou. Chron. Agric., Lausanne, **15**, 1902, (1-10). [4419 4431]. 168

**Faire, E.** Supplément à la Faune des Macrolépidoptères du Valais. Schaff-

hausen, Mitt. Schweiz. Entomol. Ges., **11**, 1903, Peilage, (1-39). [4427 di]. 169

**Farkas, Kálmán.** Untersuchungen über den Energie- und Stoffumsatz bei der Entwicklung von Seidenraupen. (Ungarisch) Math. Term. Ert., Budapest, **21**, 1903, (59-94). [4411 4431]. 170

**Fassl, A. H.** Die Eiablage der Tagfalter in der Gefangenschaft. Ent. Jahrb., Leipzig, **12**, 1903, (139-142). [4419]. 171

——— *Ornithoptera goliath*. Insektenbörse, Leipzig, **20**, 1903, (100). [4431]. 172

**Fawcett, J. Malcolm.** Notes on the transformations of some South-African Lepidoptera (continued from vol. xv.). London, Trans. Zool. Soc., **17**, 1903, (165-190, pls. VI-VIII). [4415 4431]. 173

**Finks, L.** *Oderia tibiale*. Ent. Zs., Guben, **16**, (1902-03), 1902, (2, 10). [4431]. 174

**Finn.** [Birds capturing butterflies.] Nature, London, **65**, 1903, (415). [5819 4419]. 175

**Fischer, E.** Lepidopterologische Experimental-Forschungen. [III.] Allg. Zs. Ent., Neudamm, **8**, 1903, (221-228, 269-284, 316-326, 356-368). [4411 4423]. 176

——— Eine Varietät von *Vanessa xanthomelas* Esp. und Bemerkungen über Eigenschaften und Verwandtschaft der Vanessen. Ent. Zs., Guben, **16**, (1902-03), 1902, (57-58, 61, 69-70). [4431]. 177

——— Drei neue Formen aus der Gruppe der Vanessiden. Soc. Entomol., Zürich, **17**, 1902, (49-50). [4423 4431]. 178

**Ford.** Gynandrous *Hesperia actaeon*. Entomologist, London, **36**, 1903, (242). [4411 4431]. 179

**Foster, F. H.** *Papilio philenor* in New Hampshire [following food plant, *Aristolochia siphia*]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (326). [4427 cg 4431]. 180

**Fougères, Marquis de.** Différence entre le papillon borer des Antilles (*Diatraea saccharalis* Fbr., *obliteratus* L.) et le papillon borer (*Diatraea striatalis* Snell) de Java, de l'île Maurice et de

- la Réunion. Paris, Bul. soc. nat. acclim., **50**, 1903, (60-62). [4419 4431]. 181
- Foulquier, G.** *Euprepia pudica*. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (51). [4419 4431]. 182
- *Leucophasia lathyri* III. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (151). [4423 4431 4427 df]. 183
- Familiarité observée chez les lépidoptères [Réponse à M. de Rocquigny - Adanson]. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (170). [4419]. 184
- Freke, P. E.** Some British forms of *Melitaea aurinia*. Entomologist, London, **36**, 1903, (86-89, 108-112). [4423 4431]. 186
- Frings, Carl.** Ein Schlusswort zur Verfolgung der Schmetterlinge durch Vögel (ueber die Mimikry-Theorie). Soc. Entomol., Zürich, **17**, 1902, (99-100, 105-108). [5819 4423]. 187
- Unregelmässige Entwicklung bei *Bombyx quercus*. Soc. Entomol., Zürich, **17**, 1903, (185-186). [4423 4431]. 188
- Ein Hybride von *Parnassus apollo-delius*. Soc. Entomol., Zürich, **18**, 1903, (52). [4423 4431]. 189
- Frohawke, F. W.** Life-history of *Vanessa antiopa*. Entomologist, London, **36**, 1903, (2-5). [4415 4431]. 190
- The earlier stages of *Lycaena arion*. Entomologist, London, **36**, 1903, (57-60). [4415 4431]. 191
- Life-history of *Argynnis lathonia*. Entomologist, London, **36**, 1903, (300-304). [4415 4431]. 192
- Fruhstorfer, H.** Verzeichnis der in Tonkin, Annam und Siam gesammelten Papilioniden und Besprechung verwandter Formen. Berliner ent. Zs., **47**, 1902, [1903], (167-234). [4427 ed ee 4431]. 193
- [Neue Subsp. v. *Papilio*.] Berliner ent. Zs., **48**, 1903, ((3)-(4)). [4431]. 194
- [*Acmona lena* Atk. ♀.] Berliner ent. Zs., **48**, 1903, ((18)). [4431]. 195
- [*Ornithoptera priamus* n. var.]. Berliner ent. Zs., **48**, 1903, (18)-(19), (20). [4431]. 196
- (n 2-9053)
- Fruhstorfer, H.** Neue *Hypolimnas* und Uebersicht der bekannten Arten. [Ferner: Neue *Euploea*. Neue Nymphaliden. Neue Pieriden und Uebersicht verwandter Formen. Eine neue *Libythea* aus Afrika.] Berliner ent. Zs., **48**, 1903, (73-112). [4431]. 197
- Verzeichnis der in Tonkin, Annam und Siam gesammelten Nemeobiinae und Libythaeinae und Besprechung verwandter Formen. Berliner ent. Zs., **48**, 1903, (274-296). [4427 ee ed 4431]. 198
- Neue und seltene Lepidopteren aus Annam und Tonkin und dem malayischen Archipel. D. ent. Zs. Iris, Berlin, **14**, (1901), 1902, (265-276, mit 1 Taf.). [4427 ed eg 4431]. 199
- Eine neue Lokalform der seltenen *Ag[rias] amydonius* Stdgr. D. ent. Zs. Iris, Berlin, **14**, (1901), 1902, (327-328). [4431]. 200
- Neue Lepidopteren aus dem australmalayischen Gebiet. D. ent. Zs. Iris, Berlin, **14**, (1901), 1902, (329-330). [4431 4427 eg]. 201
- Neue indo-australische Lepidopteren. D. ent. Zs. Iris, Berlin, **14**, (1901), 1902, (334-350). [4431 4427 i]. 202
- Eine neue *Agrias*. [*A. claudia* ab. *vesta*.] D. ent. Zs. Iris, **14**, (1901), 1902, (351-352). [4431]. 203
- Neue *Papilio*-Formen aus dem indo-malayischen Gebiet. D. ent. Zs. Iris, Berlin, **15**, 1902, (161-168). [4427 ef eg 4431]. 204
- Neue Lepidopteren aus dem indo-malayischen Gebiet. D. ent. Zs. Iris, Berlin, **15**, 1902, (169-178). [4431 4427 ef eg]. 205
- *Agrias narcissus* Stdgr. ♂ oder nov. subsp. D. ent. Zs. Iris, Berlin, **15**, 1902, (179, mit 1 Taf.). [4431]. 206
- Verzeichniss der in Tonkin, Annam und Siam gesammelten Pieriden und Besprechung verwandter Formen. D. ent. Zs. Iris, Berlin, **15**, (1902), 1903, (260-305). [4427 ed ee 4431]. 207
- Neue *Papilio*-formen und andere Lepidopteren aus Ost-Asien und dem malayischen Archipel. D. ent. Zs. Iris, Berlin, **15**, (1902), 1903, (306-315). [4431 4427 eg]. 208



- Fruhstorfer, H.** Zwei neue *Pseudacraea* aus Afrika. D. ent. Zs. Iris, Berlin, **16**, 1903, (9-10). [4431]. 209
- Neue Papilioniden aus dem australischen Gebiet. D. ent. Zs. Iris, Berlin, **16**, 1903, (11-16). [4427 i 4431]. 210
- Eine neue *Elymnias* von Formosa. D. ent. Zs. Iris, Berlin, **16**, 1903, (17-19). [4427 ec 4431]. 211
- Eine neue Satyride von Borneo. D. ent. Zs. Iris, Berlin, **16**, 1903, (20-21). [4427 eg 4431]. 212
- Neue Nymphaliden aus Ostasien. D. ent. Zs. Iris, Berlin, **16**, 1903, (22-42). [4431 4427 e]. 213
- Neue Parnassier. D. ent. Zs. Iris, Berlin, **16**, 1903, (43-46, mit Taf.). [4431]. 214
- Neue Pieriden aus Ost- und Süd-Asien. D. ent. Zs. Iris, Berlin, **16**, 1903, (47-50). [4431 4427 ed]. 215
- Revision der Gattungen *Hestia* und *Nectaria*. D. ent. Zs. Iris, Berlin, **16**, 1903, (51-65). [4431]. 216
- Eine neue Nymphalide aus Neu-Guinea. D. ent. Zs. Iris, Berlin, **16**, 1903, (66-67). [4427 ia 4431]. 217
- Beitrag zur Kenntniss der Lepidopteren der Viti-Inseln. Stettiner ent. Ztg, **63**, 1902, (350-359). [4427 nf 4431]. 218
- Neue afrikanische Lepidopteren. Stettiner ent. Ztg, **64**, 1903, (359-361). [4427 f 4431]. 219
- Zwei neue Sikkim-Falter. Insektenbörse, Leipzig, **20**, 1903, (148). [4427 ef 4431]. 220
- Neue Falter von der Insel Obi. Insektenbörse, Leipzig, **20**, 1903, (349, 357). [4427 eg 4431]. 221
- Neue *Caligo*-Formen. Insektenbörse, Leipzig, **20**, 1903, (413). [4431]. 222
- *Papilio xenocles: hephissos* n. subsp. Soc. Entomol., Zürich, **16**, 1902, (145-146). [4427 ed 4431]. 223
- *Elymnias undularis: meridionalis* n. subsp., *E. undularis: violetta* n. subsp., *E. lais: apelles* n. subsp., *Papilio antiphates: antiphonus* n. subsp. Soc. Entomol., Zürich, **16**, 1902, (169-170). [4427 e 4431]. 224
- Fruhstorfer, H.** Neue *Papilio*-formen aus dem Indo-Australischen Gebiet. Soc. Entomol., Zürich, **17**, 1902, (57). [4427 ia e 4431]. 225
- *Troides amphrysus gardineri* n. nom. für *Troides ruficollis* Rothschild. Soc. Entomol., Zürich, **17**, 1902, (57). [4431]. 226
- Neue *Papilio*-formen aus Ostasien. Soc. Entomol., Zürich, **17**, 1902, (73-74). [4427 e 4431]. 227
- Neue ostasiatische Rhopaloceren. Soc. Entomol., Zürich, **17**, 1902, (81-82). [4427 e 4431]. 228
- Neue Pieriden aus dem Indo-Australischen Gebiet. Soc. Entomol., Zürich, **18**, 1903, (17-18). [4427 eg ia 4431]. 229
- Verzeichnis der in Hinter-Indien gesammelten Pieriden. Soc. Entomol., Zürich, **18**, 1903, (18-19, 25-26). [4427 e 4431]. 230
- Neue Pieriden aus Ost-Asien. Soc. Entomol., Zürich, **18**, 1903, (35-36). [4427 e 4431]. 231
- Tonkin - Pieriden. Soc. Entomol., Zürich, **18**, 1903, (41-42). [4427 ed 4431]. 232
- *Ornithoptera paradisea* ab. *auriflua* n. subsp. Soc. Entomol., Zürich, **18**, 1903, (49). [4427 ia 4431]. 233
- Eine neue *Ornithoptera*-form. Soc. Entomol., Zürich, **18**, 1903, (49). [4423 4431]. 234
- *Papilio macfarlanei: cestius* n. subsp. [Lokalität unbekannt]. Soc. Entomol., Zürich, **18**, 1903, (49). [4427 eg 4431]. 235
- Zwei neue Parnassier. Soc. Entomol., Zürich, **18**, 1903, (49-50). [4427 e 4431]. 236
- Eine neue *Ornithoptera*-form aus Sumatra. Soc. Entomol., Zürich, **18**, 1903, (57). [4423 4427 eg 4431]. 237
- Zwei neue Nymphaliden aus Neu-Guinea. Soc. Entomol., Zürich, **18**, 1903, (65). [4427 ia 4431]. 238
- Neue Rhopaloceren des malayischen Archipels. Soc. Entomol., Zürich, **18**, 1903, (73). [4427 eg 4431]. 239

**Fruhstorfer**, H. *Parnassius imperator*: *augustus* n. subsp. Soc. Entomol., Zürich, **18**, 1903, (113). [4427 ef 4431]. 240

——— *Saletara panda*: *eugania* n. subsp. Soc. Entomol., Zürich, **18**, 1903, (124–125). [4427 e b 4431]. 241

——— Neue *Caligo*-Formen. Soc. Entomol., Zürich, **18**, 1903, (145). [4427 h 4431]. 242

**Fuchs**, A. Neue Kleinfalter des Mittelmeergebiets. Stettiner ent. Ztg., **64**, 1903, (3–16). [4427 dm 4431]. 243

——— Alte und neue Kleinfalter der europäischen Fauna. Stettiner ent. Ztg., **64**, 1903, (227–247). [4427 d 4431]. 244

——— Alte und neue Gross-Schmetterlinge der europäischen Fauna. Wiesbaden, Jahrb. Ver. Natk., **55**, 1902, Abt. II, (67–80). [4427 d 4431]. 245

——— Beiträge zur Kenntniss der Lepidopteren-Fauna von Suniata. Erste Besprechung: Neue Geometriden. Wiesbaden, Jahrb. Ver. Natk., **55**, 1902, Abt. II, (81–91). [4427 eg 4431]. 246

——— Drei neue Lepidopteren-Formen der europäischen Fauna. Soc. Entomol., Zürich, **18**, 1903, (3). [4427 d 4423 4431]. 247

——— *Stilbia insularis* n. sp. Soc. Entomol., Zürich, **18**, 1903, (9–10). [4427 dh 4431]. 248

——— *Bapta bimaculata* F. var. et ab. *bipunctata* Fuchs und *Gnophos difficilis* Alph. n. var. *korlata*. Soc. Entomol., Zürich, **18**, 1903, (43). [4427 d 4431]. 249

——— Zwei neue *Leucanitis*-Formen aus Akesu. Soc. Entomol., Zürich, **18**, 1903, (50–51). [4427 ei 4431]. 250

——— *Cucullia linosyridis* n. sp. aus der Loreleygegend. Soc. Entomol., Zürich, **18**, 1903, (83–84). [4427 de 4431]. 251

**Fuchs**, Ferdinand. Zwei neue Schmetterlingsformen der palaearktischen Fauna. Soc. Entomol., Zürich, **18**, 1903, (73–74). [4427 d 4431]. 252

**Gal**, Jules. Sur la ponte de *Bombyx mori*. Paris, C.-R. Acad. sci., **137**, 1903, (932–934). [4419 4431]. 253

(N 2-9053)

**Gauckler**, H. Ein Beitrag zur Eiablage der Schmetterlinge. Ent. Jahrb., Leipzig, **12**, 1903, (128–138). [4419]. 254

——— II. Nachtrag zu dem i. J. 1896 hrag. Verzeichnisse der Grossschmetterlinge der Umgegend von Karlsruhe, Baden, Bruchsal, Durlach und Ettlingen. D. ent. Zs. Iris, Berlin, **15**, (1902), 1903, (339–342). [4427 de]. 255

——— Einige Bemerkungen zu Schreibers Raupenkalender. Insektenbörse, Leipzig, **20**, 1903, (180–181). [4419]. 256

——— Etwas über Grössenbestimmung der Schmetterlinge. Insektenbörse, Leipzig, **20**, 1903, (292–293). [4423]. 257

——— Die Jugendstadien von *Larentia picata* Hb. und *Larentia designata* Hufn. Insektenbörse, Leipzig, **20**, 1903, (331–332). [4431]. 258

**Geddes**, John M. *Cüheronia sepulcralis* in Pennsylvania. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (284–285). [4427 gg 4431]. 259

**Geest**, W. Neue Schmetterlings-Aberrationen. Allg. Zs. Ent., Neudamm, **8**, 1903, (308–313). [4423 4431]. 260

**Geyer** v. Hübner, J.

**Giard**, Alfred. *Rhodocera cleopatra*, *Euprepia pudica* et *Cleophana anarrhini*. Réponse partielle aux questions de M. G. Dupuy. Feuille jeunes natural., Paris, (sér. 4), **33**, 1902, (33–34). [4427 df 4431]. 261

——— Les Argynnides de la France septentrionale. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (43–46). [4431 4427 df 4419]. 262

——— Apparitions tardives d'*Apatura ilia* Schiff et *Limenites sibylla* L. Feuille jeune natural., Paris, (sér. 4), **33**, 1903, (50–51). [4419 4431]. 263

——— *Rhodocera cleopatra* L. A propos de l'observation de M. Brascassat. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (84). [4419 4431]. 264

——— L'albinisme partiel des Satyrides [à propos de la Note de M. G. de Rocquigny-Adanson]. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (103–104). [4423 4431]. 265

- Giard, Alfred.** Evolution d'*Acherontia atropos*. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (124-127). [4415 4431]. 266
- Variations du nombre et de la forme des ocelles chez les Satyrides. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (133). [4423 4431]. 267
- *Ctenonympha hero* L. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (203). [4431 4419 4427] 268
- Sons émis par les chenilles. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (222). [4419]. 269
- Gillanders, A. T.** Notes on miscellaneous arboreal insects. Manchester, Trans. Microsc. Soc., **1902**, (72-80, pl. I). [4419 4231]. 270
- Gillette, C. P.** Number of broods of the codling moth [*Carpocapsa pomonella*] as indicated by published data. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (193-196). [4431 4419]. 271
- Life history studies on the codling moth [with discussion]. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **31**, 1902, (1-23). [4431 4419]. 272
- Gillmer, M.** Eine autorisirte deutsche I. Ausgabe von Tutts British Lepidoptera. D. ent. Zs. Iris, Berlin, **15**, (1902), 1903, (330-334). [4403]. 273
- *Amorpha populi* ab. *pallida* Tutt und *Amorpha populi* ab. *subflava* Gillmer. Insektenbörse, Leipzig, **20**, 1903, (28-29). [4431]. 274
- Ueber *Hibernia*. Insektenbörse, Leipzig, **20**, 1903, (291-292, 299-300). [4431]. 275
- Die Abbildung von *Lycaena corydon*, Poda ab. *cinnus*. Soc. Entomol., Zürich, **17**, 1902, (68-69). [4431]. 276
- Die Futterpflanze, das Ei und die junge Raupe von *Lycaena alcon*. F. Soc. Entomol., Zürich, **17**, 1902, (92-93, 98-99). [4419 4431]. 277
- Das Ei von *Erebia glacialis* Esper. Soc. Entomol., Zürich, **18**, 1903, (74). [4419 4431]. 278
- Giraudan, H.** Familiarité observée chez les lépidoptères. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (223). [4419]. 279
- Godman, F. D.** Notes on some Central and S. American *Erycinidae*, with descriptions of new species. London, Trans. Ent. Soc., **1903**, (529-548, pls.). [4427 h 4431]. 280
- Godon, J.** Capture du *Saturnia pyri*. Feuille jeunes natural., Paris, (sér. 4), **33**, 1902, (9). [4431 4427 df]. 281
- Goudie, D.** Notes on the larvae and pupae of Birchip [Victoria] *Heterocera*. Vict. Nat., Melbourne, **19**, 1903, (132, 170-171); **20**, 1903, (42). [4427 if 4431]. 282
- Grinnell, Fordyce jun.** Three undescribed Lepidoptera from Southern California. [*Thecla spadix*, *Pamphila subuleti* var. *tecumseh* n. var., and *Anatolmis regulus* n. sp.]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (10-11). [4427 gi 4431]. 283
- Gross, Heinrich.** Beitrag zur Macrolepidopteren-Fauna von Oberösterreich und dem angrenzenden Theile von Steiermark. Wien, JahrBer. Entom. Ver., **11**, (1900), 1901, (25-83). [4427 dk]. 284
- Grote, Radcliffe A.** Nachtrag zu dem Aufsatz: „Geometridengattungsnamen“, Ins.-Börse XIX Jg, 1902. Insektenbörse, Leipzig, **20**, 1903, (85). [4403 4431]. 285
- Die Flügelbildung von *Polycæna*. Insektenbörse, Leipzig, **20**, 1903, (107-108). [4431]. 286
- Grünberg, Karl.** Untersuchungen über die Keim- und Nährzellen in den Hoden und Ovarien der Lepidopteren. Ein Beitrag zur Kenntnis der Entwicklung und Ausbildung der Keimdrüsen bei den Insekten. Zs. wiss. Zool., Leipzig, **74**, 1903, (327-395, mit 3 Taf.). [4415]. 287
- Grunack, A.** Das Aufsuchen der Sesiiden-Raupen. Ent. Zs., Guben, **16**, (1902-03), 1902, (37-38). [4403 4431]. 288
- Grass, Friedrich jun.** Die Häutungen der Raupen von *Caligula japonica* Butler. Insektenbörse, Leipzig, **20**, 1903, (388-389). [4415 4431]. 289
- Guerico (Del), Giacomo.** Mezzi chimici di lotta contro la cavolaia. Bollettino di Entomologia agraria, Padova, **9**, 1902, (63-65). [4403 4431]. 290

- Guignon.** Familiarité des lépidoptères [Réponse à une question de M. de Rocquigny-Adanson]. Feuille jeunes natural., Paris, (sér. 4), 1903, (171). [4419]. 291
- Haberhauer, Jos.** *Porthesia rebeli* n. sp. Soc. Entomol., Zürich 17, 1902, (82). [4427 dl 4431]. 292
- Haberland, J.** Ein Beitrag zur Lebensweise von *Bombyx rubi*. Insektenbörse, Leipzig, 20, 1903, (115). [4431 4419]. 293
- Haensch, Rich[ard].** Die Ithomiiden (Neotropiden) meiner Ecuador-Reise. Mit Beschreibungen neuer Formen und biologischen Notizen. Berliner ent. Zs., 48, 1903, (157-214, mit 1 Taf.). [4431 4427 he]. 294
- Halliday.** [Dark varieties of Heterocera]. Halifax Nat., 8, 1903, (81-83). [4423]. 295
- Hamm and Others.** [Birds capturing butterflies]. Nature, London, 65, 1903, (366). [5819 4419]. 296
- Hampson, Sir G. F.** A remarkable new Lepidopterous Insect from Zululand. London, Trans. Ent. Soc., 1903, (137-139). [4427 fg 4431]. 297
- New forms of *Pyrilidae* from Spain. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (58). [4427 dg 4431]. 298
- Descriptions of new *Syntomidae* and *Aretiadae*. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (337-351). [4431]. 299
- Catalogue of the *Noctuidae* in the collection of the British Museum. London, 1903, (pp. xx + 689). Atlas of 23 pls., (lv-lxxvii). 8vo. This forms Vol. IV of the Cat. Lep. Phalaenae, and is devoted to the subfam. Agrotinae. [4431]. 300
- Lepidoptera II. Phalaenae. Nat. Hist. Sokotra, (321-338, pl. XX). [4427 ff 4431]. 301
- The moths of India, supplementary paper to the volumes in the Fauna of British India. Series II. Parts VIII-X. Bombay, J. Nat. Hist. Soc., 14, 1903, (639-659); 15, 1903, (19-37, 206-225, with pl.). [4427 cf 4431]. 302
- List of types of *Catocala* in the British Museum. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (287). [4403 4431]. 303
- Hampson, Sir G. F. v. Dudgeon, G. C.**  
——— v. Heron, F. A.
- Hanfeld, [Oencis jutta Hb. im Zehlauer Bruch, Ostpreussen.]** Berliner ent. Zs., 48, 1903, (12). [4431]. 304
- [*Zygna ephialtes* u. a.] Berliner ent. Zs., 48, 1903, ((25)-(26), (28)). [4431]. 305
- [*Argynnis paphia* ab.] Berliner ent. Zs., 48, 1903, ((29)). [4431]. 306
- Heckel.** Halbierter Zwitter *Platysmia cecropia*. Ent. Zs., Guben, 16, (1902-03), 1903, (31). [4411 4431]. 307
- Heink, Chas. L.** [Lepidoptera of Meramec Highlands, Mo.] Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (334-335). [4427 gi]. 308
- Heller, K. M.** Ueber *Terinos* und eine neue *Abisara*-Art aus Neu-Guinea. D. ent. Zs. Iris, Berlin, 15, 1902, (127-132 mit 1 Taf.). [4431]. 309
- Hering, Ed.** Uebersicht der Sumatra-*Pyrilidae*. III. (Forts.) Stettiner ent. Ztg., 64, 1903, (38-97, mit 1 Taf.). [4427 eg 4431]. 310
- Neue *Pyriliden* aus dem tropischen Faunengebiet. Stettiner ent. Ztg., 64, 1903, (97-112). [4431]. 311
- Heron, F. A. and Hampson, Sir G. F.** On the Lepidoptera collected at Chapada, Matto Grosso, by Mr. A. Roberts (Percy Sladen Expedition to Central Brazil). London, Proc. Zool. Soc., 1903, 2, (258-260). [4427 hh 4431]. 312
- Herz, Otto.** Beitrag zur Kenntniss der Lepidopterenfauna der Tschuktschen-Halbinsel. St. Petersburg, Ann. Mus. Zool. Ac. Sc., 8, 1903, (14-16). [4427 ea]. 313
- Verzeichniss der auf der Mammuth Expedition gesammelten Lepidopteren. St. Petersburg, Ann. Mus. Zool. Ac. Sc., 8, 1903, (61-87). [4427 ea 4431]. 314
- Lepidopteren - Ausbeute der Lena-Expedition von B. Poppius im Jahre 1901. Helsingfors, Öfvers. F. Vet. Soc., 45, [No. 15], 1902-1903, (1-22, mit 1 pl.). [4431 4427 ea]. 315

**Heylaerts, F. J. M.** Description d'une psychide inédite de la République Argentine. *Chalia kunkelii* n. sp. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (97). [4431 4427 hi]. 316

**Hirschke, Hansia.** Eine neue Local-Form der *Melitaea maturna* Hb. var. *urbani* mihl. Wien, JahrBer. Entom. Ver., **11**, (1900), 1901, (85, mit 1 Taf.). [4431]. 317

**Hirschler, Jan.** Studien über Regenerationsvorgänge bei Lepidopteren-Puppen. Anat. Anz., Jena, **23**, 1903, (612-627). [4411 4415]. 318

Recherches sur l'anatomie comparée de la corde de Leydig chez les lépidoptères. (Polish) Kosmos, Lwów, **28**, 1903, (137-153, av. 1 pl.). [4407]. 319

**Höfner, G.** Die Schmetterlinge des Lavantalles und der beiden Alpen Kor- und Saualpe. XVI Nachtrag. Carinthia II, Klagenfurt, **93**, 1903, (177-180). [4427 dk]. 321

**Hoffmann, C.** Nochmals die Zucht von *Pleretes (Pericallia) matronula*. Ent. Zs., Guben, **16**, (1902-03), 1902, (30-31). [4431 4403]. 322

**Hofgren, Gottfried.** Pyralids new for the Swedish fauna. (Swedish) Entomol. Tidskr., Stockholm, **22**, 1901, (241-248). [4427 da 4431]. 323

**Holland, W[illiam] J.** Description of an apparently new species of *Palindia*. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (172-173). [4431]. 324

The moth book; a popular guide to the knowledge of the moths of North America. New York (Doubleday, Page & Co.), 1903, (XXIV + 479, with illustr., XLVIII pl.). 26.5 cm. [4403 4427 g]. 325

**Hormuzaki, Constantin Freiherr von.** Ueber die in den Karpathen einheimischen Arten der Gattung *Erebia* Dalm. und deren Beziehungen zur pleistocänen Fauna Mitteleuropas. D. ent. Zs. Iris, Berlin, **14**, (1901), 1902, (353-380). [4427 dk 4431]. 326

Ueber einige merkwürdige *Zygaena*-Formen aus der Bukowina. Soc. Entomol., Zurich, **17**, 1902, (137-139). [4427 dk 4423 4431]. 327

**Hornig, Herman.** Cocoons of *Gamia cynthia*. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (132-134, with pl.). [4431]. 328

The feeding habits of the larva of *Anthocharis genutia*. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (252). [4419 4431]. 329

**Houghton, C. O.** *Orneodes hexadactyla* Linn. [at Ithaca, N.Y.]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (89). [4427 gg 4431]. 330

**Houghton, J. T.** Contributions to the life-history of *Gelechia (Recurvaria) nanella* Hb., from an economic point of view. Ent. Mag., London, **39**, 1903, (219-221). [4419 4431]. 331

**Hudson, G. V.** On some new species of Macrolepidoptera. Wellington, Trans. N. Zeal. Inst., **35**, 1903, (243-245). [4431]. 332

**Hübner, J. et Geyer.** Lépidoptères exotiques (1806-1837). Nouvelle édition, revue, corrigée et augmentée, publiée par W. F. Kirby et P. Wytman, Livraisons 48-54. Bruxelles (P. Wytman), 1901-1903, (17-172, pls. 381-437). Le livraisons 10 fr. [4403]. 333

**Hulme, F. E.** Butterflies and moths of the country side. The Woburn Library. London, 1903, (xx + 300, xxxv pls.). [4403]. 334

**Iches, Lucien.** Le ver des pommes. Nature, Paris, (1<sup>re</sup> sem.), **31**, 1903, (145-147, av. fig.). [4431 4419]. 335

**Jachontov, A. A.** Une aberration de *Pieris brassicae* L. (Russ.) Rev. Russ. Ent., Jaroslavl, **3**, 1903, (38). [4431]. 336

Sur le trimorphisme, suivant les saisons, de quelques Pierides. (Russ.) Rev. Russ. Ent., Jaroslavl, **3**, 1903, (157-160). [4423]. 337

Un specimen hermaphrodite de *Smerinthus populi* L. (Russ.) Rev. Russ. Ent., Jaroslavl, **3**, 1903, (217-218). [4411]. 338

**Jacobi, Arnold.** Die Mehlmotte (*Ephestia kuehniella* Zell) Berlin, Flughl. Gesundheitsamt, Nr. **16**, 1902, (4). [4431]. 339

**Jäger, J.** *Ophiusa stolidus* Fab. a Noctuid new to Britain. Ent. Mag., London, **39**, 1903, (269). [4427 de 4431]. 340

**Jammerath, H.** Systematisches Verzeichnis der in der Umgegend von Osnabrück bisher beobachteten Grossschmetterlinge (Macrolepidoptera). Osnabrück, Jahresber. natw. Ver., **15**, (1901/1902), 1903, (1-4, 67-100). [4427 *dc*]. 341

**Janet, A.** Les papillons. Caus. sci., Paris, **1**, 1902, (309-350, av. 1 pl. et 10 figs.). [4103]. 342

—— and **Wytzman, P.** Lepidoptera heterocera fam. *Lepicopiidae*. In: Wytzman, P., Genera Insectorum, Bruxelles, 1903, (5 pp, 1 pl. noire et 1 pl. colorée hors texte). fr. 5.35. [4431]. 343

**Johnson, W. G.** New location for Mediterranean Flour Moth. [*Ephestia kuehniella* from White co., Indiana.] Philadelphia, Pa. Ent. News Acad. Nat. Sci., **13**, 1902, (159). [4427 *gg* 4431]. 344

**Jones, A. H.** Lepidoptera in Southern Spain during the last half of October, 1902. Ent. Mag., London, **39**, 1903, (54-56). [4427 *dg*]. 345

**Jordan, K.** Some new species of moths. Nov. Zool., Tring, **10**, 1903, (315, 316). [4431]. 346

—— v. Rothschild, Hon. W. 347

**Julien, J.** Notes sur la *Catocala puerpera*. Soc. Entomol., Zürich, **17**, 1902, (97-98). [4419 4427 *di* 4431]. 348

—— Neue Apparate zur Aufzucht von Raupen. Insektenbörse, Leipzig, **20**, 1903, (300-301). [4403]. 349

**Kabis, Argynnis paphia** L. Zwitter. Ent. Zs., Guben, **16**, (1902-03), 1902, (42). [4411 4431]. 350

**Kaye, W. J.** Lepidoptera in South Kerry. Irish Nat., Dublin, **12**, 1903, (66-67). [4427 *de*]. 351

—— Some considerations concerning mimicry. Ent. Rec., London, **15**, 1903, (177-179). [4419]. 352

**Kearfoot, W. D.** Notes on an Eriocranid larva. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (129-132). [4431]. 353

—— Descriptions of new Tineoidea. New York, N.Y., J. Ent. Soc., **11**, 1903, (145-165, with pl.). [4431]. 354

**Kellogg, V[ernon] L[yman] and Bell, R. G.** Variations induced in larval,

pupal and imaginal stages of *Bombyx mori* by controlled varying food supply. Science, New York, N.Y., (N. Ser.), **18**, 1903, (741-718). [0223 4423 4431]. 355

**Klefer, Hans.** Fangergebnisse bei elektrischem Lichte. Insektenbörse, Leipzig, **20**, 1903, (163-164). [4403]. 356

**Kirby, William [Forsell].** The butterflies and moths of Europe. London, Paris, New York and Melbourne (Cassell & co. Ltd), 1903, (lxxii + 432, with illustr., pl.). 27.5 cm. [4403 4427 *d*]. 357

**Klooss.** [Reise nach Lappland zum Qvikkjokk-Gebirge.] Berliner ent. Zs., **48**, 1903, ((7)-(9)). [4427 *da*]. 358

**Klos, Rudolf.** Zur Lebensgeschichte von *Tephroclystia virgaureata* Dbl. Wien, Verh. ZoolBot. Ges., **51**, 1901, (785). [4431 4419]. 359

**Kolbe, K.** Ueber vorschnelle Entwicklung von Puppen- und Imago-Organen bei Raupen von Lepidopteren (*Dendrolimus pini* L.). Berlin, SitzBer. Ges. natf. Freunde, **1902**, (158-166). [4415]. 360

**Korb, Max.** Eine neue *Zygaena* [*Z. rosinae* n. sp.]. D. ent. Zs. Iris, Berlin, **15**, (1902), 1903, (326-327). [4431]. 361

**Kossonogoff, J.** Ueber optische Resonanz. 2. vorläufige Mitteilung. Optische Resonanz als Ursache der Färbung der Schmetterlingsflügel. Physik. Zs., Leipzig, **4**, 1903, (258-261). 3. vorl. Mitt. Antwort an die Hrn. R. W. Wood und A. Garbasse. Einige Resultate der quantitativen Untersuchungen. l.c. (518-520). [4423]. 363

**Krüger.** [Varietäten v. *Lycaena corydon*.] Berliner ent. Zs., **48**, 1903, ((22)-(23)). [4431]. 364

—— [*Zygaena fausta* n. var.] Berliner ent. Zs., **48**, 1903, ((24)-(25)). [4431]. 365

**Krutilkovskij, L.** Petites notices lépidoptérologiques VI, VII. (Russ.) Rev. Russ. Ent., Jaroslavl, **3**, 1903, (30-32, 177-182). [4431]. 366

—— Notice sur la chasse des lépidoptères durant l'été 1902 dans le district Urzum, gouv. Viatka. (Russ.) Rev. Russ. Ent., Jaroslavl, **3**, 1903, (110-114). [4423 4427 *db*]. 367

—— Notes pour servir à l'étude des lépidoptères de la Sibirie occidentale

et du Semirečje. (Russ.) Rev. Russ. Ent., Jaroslavl, **3**, 1903, (300-303). [4427 ea]. 369

**Kuznezov, N. I. v. Kuznecov, N. I.**

**Kuznezov, N. I.** Excursions d'été, en 1902, sur la côte sud de la Crimée. (Russ.) Rev. Russ. Ent., Jaroslavl, **3**, 1903, (5-7). [4427 db 3827 db]. 370

Some remarks on the genus *Catocala* Schrank in the Catalogue of Lepidoptera by Staudinger and Rebel, 1901 (Russ.) Rev. Russ. Ent., Jaroslavl, **3**, 1903, (71-75); Eng. Res. (75-76). [4431]. 371

A new nearctic species of the genus *Catocala* Schrank. Rev. Russ. Ent., Jaroslavl, **3**, 1903, (166-168, with 3 figs). [4431]. 372

**Labonnefon, C. de.** Almanach du chasseur de chenilles. Interméd. bombycult., Paris, **2**, 1902, (336-341, 361-369); **3**, 1903, (6-15). [4419 4431]. 373

**Lambillion, L. J. L.** Histoire naturelle et mœurs de tous les papillons de Belge. Description complète de chaque espèce; insecte parfait, œuf, chenille, chrysalide, plantes nourricières, époque d'éclosion, localités, distribution géographique, etc., etc. Ouvrage précédé de renseignements anatomiques et biologiques et d'une liste de papillons fossiles. Vol. I. Namur (V. Delvaux), 1902, (CXXIV+320, av. figs.). [4403]. 374

Catalogue des lépidoptères de Belgique donnant les noms de tous les papillons pris en Belgique jusqu'à ce jour avec leurs variétés, leurs synonymes, les époques d'apparition, les localités, les époques des chenilles, leur nourriture, etc. et une liste de papillons paléarctiques après chaque groupe indigène. 2<sup>me</sup> Ed. considérablement augmentée. Fasc. V. Namur (V. Delvaux), 1903, (65-80). 8vo. Le Fasc. fr. 0.50. [4403 4427 dd]. 375

**Lampa, Sven.** Two of our moths harmful to cereals. *Hadena tritici* Lin., *H. secalis* Lin. (Swedish) Entomol. Tidskr., Stockholm, **22**, 1901, (129-136, with pl.). [4427 da 4431]. 376

*Nephopteryx similella* Zick., a Pyralid new for the Swedish fauna. (Swedish) Entomol. Tidskr., Stockholm, **22**, 1901, (248). [4427 da 4431]. 377

**Lathy, P. L.** An account of a collection of Rhopalocera made on the Anambara Creek in Nigeria, West Africa. London, Trans. Ent. Soc., **1903**, (183-206, pl. VIII). [4427 fd 4431]. 378

A new subspecies of *Isodema adelma* Feld. Entomologist, London, **36**, 1903, (12). [4431]. 379

A new species of *Callithea* from Peru. Entomologist, London, **36**, 1903, (105, pl. II). [4427 hf 4431]. 380

**Latter.** [Birds capturing butterflies]. Nature, London, **65**, 1903, (273). [5819 4419]. 381

**Laurent, Philip.** The moths (Heterocera) of eastern Pennsylvania. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (43-45; 69-72, 111-113, 139-140, 169-171). [4427 gg 4431]. 382

Notes on the butterflies of Miami, Florida. Philadelphia, Pa., Ent. News, Acad. Nat. Sci., Amer. Ent. Soc., **14**, 1903, (297-297). [4427 gh 4431]. 383

**Leigh, G. F.** Protective resemblance and other modes of defence adopted by the larvæ and pupæ of Natal Lepidoptera. London, Proc. Ent. Soc., **1903**, (xxi-xxv). [4419]. 384

**Lenert, A.** Erfahrungen in der Bekämpfung des Heu- und Sauerwurms. Trier (J. Lintz), 1903, (36, mit 1 Taf.). 22 cm. 0.80 M. [4403 4431]. 385

**Leonhardt, Wilhelm.** Aberrationen von *Lycæna coridon* Poda. Ent. Zs., Guben, **16**, (1902-03), 1902, (50). [4431]. 386

**Leslie, G. A. and Evans, W. H.** The butterflies of Chitral. Bombay, J. Nat. Hist. Soc., **14**, 1903, (666-678). [4427 ef 4431]. 387

**Letacq, A. I.** Observations sur l'*Acherontia atropos*. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (150-151). [4415 4419 4431]. 389

**Letcher, Beverly.** *Phryganidia californica* Packard. New York, N.Y., J. Ent. Soc., **11**, 1903, (125-127). [4431]. 389a

**Leverkühn, Paul.** Ueber eine pseudo-ornithologische Mitteilung aus dem Jahre 1720 [betr. *Sphinx atrov*]. Ornith. Monatschr., Gera, **28**, 1903, (294-297). [4431]. 390

- Levrat, D. et Conte, A.** Sur l'origine de la coloration naturelle des soies de lépidoptères. *Naturaliste, Paris*, **24**, 1902, (260-261). [4407]. 391
- Lewis, R. T.** Note on some insects sent from Queensland by Mr. C. J. Pound, F.R.M.S. (London). *London, J. Quek. Microsc. Cl.*, **8**, 1903, (553-554). [4427 id 4431]. 392
- Linden, M[aria] Gräfin von.** Das rote Pigment der Vanessen, seine Entstehung und seine Bedeutung für den Stoffwechsel. *Verh. D. zool. Ges., Leipzig*, **13**, 1903, (53-65, mit 1 Taf.). [4415 4411]. 393
- Die Farben der Schmetterlinge und ihre Ursachen. *Halle, Leopoldina*, **38**, 1902, (124-133). [4411 4407]. 394
- Neue Untersuchungen über die Farben der Schmetterlinge. *Halle, Leopoldina*, **39**, 1903, (110-112, 116-120). [4411]. 395
- Loiselle, A.** A propos de l'évolution d'*Acherontia atropos*. Feuille jeunes natural., *Paris, (ser. 4)*, **33**, 1903, (127). [4415 4431]. 396
- Longstaff, G. B.** [Sugar trap for Lepidoptera.] *Ent. Mag., London*, **39**, 1903, (124). [4403]. 397
- Further notes on Lepidoptera observed at Morteheo, North Devon. *Ent. Mag., London*, **39**, 1903, (194-197). [4427 de 4403]. 398
- Lower, Oswald B.** Descriptions of new Australian Noctuidae, etc. *Adelaide, S. Aust., Trans. R. Soc.*, **27**, 1903, (27-74). [4427 ic 4431]. 399
- Descriptions of new genera and species of Australian Lepidoptera. *Adelaide, S. Aust., Trans. R. Soc.*, **27**, 1903, (183-201). [4427 ic 4431]. 400
- Descriptions of new species of xyomatodoma, etc. [i.e. of Lepidoptera]. *Adelaide, S. Aust., Trans. R. Soc.*, **27**, 1903, (216-239). [4427 ic 4431]. 401
- Lucas, Ed.** Winterquartier der Apfelbaumgespinnstmotte. *Pomol. Monatshefte, Stuttgart*, **49**, 1903, (77-78). [4419 4431]. 402
- Lüstner, Gustav.** Kurze Mitteilung über zwei hinsichtlich ihrer Eiablage interessante Obstbaumschädlinge. *Geisenheimer Mitt. Obstbau*, **18**, 1903, (77-78). [4419]. 403
- Lutz, Adolph und Splendore, Alfonso.** Ueber Pebrine und verwandte Mikrosporidien. Ein Beitrag zur Kenntnis der brasilianischen Sporozen. Erste Mitteilung. *Centralbl. Bakt., Jena, Abt. 1*, **33**, Originale, 1903, (150-157). [0431 4419]. 404
- Lutsau, C. von.** *Hadena adusta* var. *bathensis* m. *Soc. Entomol., Zurich*, **18**, 1903, (129-131). [4427 db 4431]. 405
- Mabille, P.** Lepidoptera rhopalocera fam. *Hesperidae*. In: *Wytman, P., Genera Insectorum, Bruxelles*, 1903, (78). 15 fr. [4431]. 406
- McKay.** [Birds capturing butterflies]. *Nature, London*, **65**, 1903, (247, 486). [5819 4419]. 407
- Mährlein.** Die Bekämpfung des Springwurmwicklers. *Mitt. Weinbau, Geisenheim*, **15**, 1903, (50-54, 72-76). [4403 4431]. 408
- Maignon, F.** La production du glucose, sous l'influence de la vie asphyxique, par les tissus du *Bombyx mori*, aux diverses phases de son évolution. *Paris, C.-R. Acad. sci.*, **137**, 1903, (93-95). [4411 4431]. 408A
- Mallock, J. R.** Further notes on the *Tortricidae* of Dumbartonshire. *Ent. Mag., London*, **39**, 1903, (2-3). [4431]. 409
- Mally, C. W.** Fruit seriously injured by moths [Cape Town, South Africa]. *Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.)*, No. **31**, 1902, (50-93). [4419 4427 fg]. 410
- Manders, N.** Notes on Ceylon butterflies. *Bombay, J. Nat. Hist. Soc.*, **14**, 1903, (716-718). [4431]. 411
- Markov, M.** Matériaux pour servir à la faune des Macrolépidoptères du gouvernement de Poltava. (Russ.) *Charikov, Trd. obsč. ispyt. prir.*, **37**, 1902, [1903], (257-272). [4427 db 4431]. 412
- Marlatt, C[harles] L[ester].** The peach-tree borer. (*Sannina exitiosa* Say). *Washington, D.C., Cir. U. S. Dept. Agric. Div. Ent.*, No. **54**, 1903, (6). [4419 4431]. 413
- Martin, Ludwig.** Das Genus *Cyrestis*, eine Revision der bekannten Arten unter Berücksichtigung der neuen Formen. *D. ent. Zs. Iris, Berlin*, **16**, 1903, (71-169). [4431]. 414
- Mengel, Levi W.** Four new species of butterflies from South America. [Peru and Paraguay.] *Philadelphia, Pa., Ent. News Acad. Nat. Sci.*, **13**, 1902, (176-178, with 1 pl.). [4427 hf li 4431]. 415



- Mengel, Levi W.** On *Cystineura floridana* Strecker [synonym of *C. cana*]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (159-160). [4431]. 416
- A new species of *Hypolimnas* from New Hebrides. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (167-168, with pl.). [4427 nh 4431]. 417
- Merrick, H. W.** Variation in *Haploa*. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (1-2, with pl.). [4423 4431]. 418
- Metelnikoff, S. J.** Beiträge zur Kenntnis der Anatomie der Raupe von *Galleria melonella*. (Vorläuf. Mitt.) Zool. Anz., Leipzig, **26**, 1903, (619-623). [4407 4431]. 419
- Metzger, C.** Der Nonnenfrass in Mittelschweden von 1899 bis 1902. Berlin, Mitt. D. Landw. Ges., **18**, 1903, Beilage, (39-48, mit 1 Karte). [4431]. 420
- Meyrick, E.** An Alpine form (*Holotoxa*, Meyr.) of *Chorcutis myllerana*, Fbr. Ent. Mag., London, **39**, 1903, (5-6). [4431]. 421
- A new Australian genus of *Gelechiidae*. Ent. Mag., London, **39**, 1903, (291). [4427 ic 4431]. 422
- Minot, George R.** Chrysalis of *Melitaea gabbi*. Egg of *Euchloe sara* var. *reakirti*. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (158). [4431]. 423
- Mittis, Heinrich Ritter von.** Ueber einige Rhopaloceren - Aberrationen. Wien, JahrBer. Entom. Ver., **11**, (1900), 1901, (113-115). [4423 4431]. 424
- Miyake, Tsunekata.** On Japanese Heterocera, figured and annotated. (Japanese) Dobuts. Z., Tokyo, **15**, 1903, (311-316). [4427 ec 4431]. 425
- Japanese Heterocera described and figured. (Japanese) Dobuts. Z., Tokyo, **15**, 1903, (354-356, 384-390). [4427 ec 4431]. 426
- Moore, F.** Lepidoptera indica. Parts LXI-LXVI. Vol. VI. London, 1903, (1-104, pls. 467-512). [4427 ef 4431]. 427
- Mory, Claude E.** Revision der bis jetzt bekannten von hybr. *epilobii* B. abgeleiteten Bastarde. Schaffhausen, Mitt. Schweiz. Entomol. Ges., **10**, 1903, (460-469). [4423 4431]. 428
- Murillo, Luis.** The *Eumaeus debora*. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (35-48). [4431]. 429
- Naufock, Albert.** Verzeichnis der Lepidopteren des Kronlandes Nieder-Oesterreichs. Wien, JahrBer. Entom. Ver., **12**, (1901), 1902, (21-104). [4427 dh]. 430
- Neave, S. A.** A new species of Lycaenid from Uganda and Lake Victoria Nyanza. Ent. Mag., London, **39**, 1903, (136-138). [4427 ff 4431]. 431
- Nerville, F. de.** A propos de la géonémie de *Podalirius*. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (205). [4427 4431]. 432
- Neuburger, Wilhelm.** Drei neue *Thais*-Aberrationen aus Digne und Budapest. Soc. Entomol., Zürich, **17**, 1903, (154-155). [4427 d 4431]. 433
- *Gnophria rubricollis* L. aber. *flavicollis* Neubr. Soc. Entomol., Zürich, **17**, 1903, (155). [4427 dl 4431]. 434
- *Papilio machaon* L. in Japan. Soc. Entomol., Zürich, **18**, 1903, (42-43). [4427 ec 4431]. 435
- *Chrysophanus achimus* H. S. var. *hyrcana* Neubgr. Soc. Entomol., Zürich, **18**, 1903, (59). [4427 eh 4431]. 436
- Neureuter, Franz.** Schmetterlinge im Winter. Natur u. Offenb., Münster, **49**, 1903, (110-112). [4419]. 437
- Neustetter, Heinrich.** Ein lepidopterologischer Ausflug in die Euganaeen u. nach Battaglia in Ober-Italien. Wien, JahrBer. Entom. Ver., **11**, (1900), 1901, (87-102). [4427 dh]. 438
- Ney, Felix.** Eine neue *Troides*-Form von Obi. Insektenbörse, Leipzig, **20**, 1903, (36). 439
- Nicéville, Lionel de (the late).** Insect pests of forest trees. Calcutta, Ind. Mus. Notes, **5**, 1903, (103-117, with pls.). [4019 4419 4819]. 440
- Insect pests of fruit trees. Calcutta, Ind. Mus. Notes, **5**, 1903, (117-127, with pls.). [4019 4419 4619 4819]. 441
- Insect pests of plants. Calcutta, Ind. Mus. Notes, **5**, 1903, (127-130, with pls.). [4019 4419 4819]. 442

**Nicéville**, Lionel de (*the late*). Insect pests of vegetables. Calcutta, Ind. Mus. Notes, **5**, 1903, (131-134, with pls.). [4419 4819]. 443

——— Insect pests of cereals and crops. Calcutta, Ind. Mus. Notes, **5**, 1903, (134-143, with pls.). [4019 4219 4119 4819]. 444

——— Insect pests of indigo. Calcutta, Ind. Mus. Notes, **5**, 1903, (144-164, with pls.). [4019 4419 4819]. 445

——— Insect pests of the sugarcane. Calcutta, Ind. Mus. Notes, **5**, 1903, (164-182, with pls.). [4019 4419 4619 4819]. 446

——— Insect pests of cotton. Calcutta, Ind. Mus. Notes, **5**, 1903, (182-184, with pls.). [4419]. 447

——— Insect pests of opium. Calcutta, Ind. Mus. Notes, **5**, 1903, (184-185, with pls.). [4419]. 448

——— Insect pests of tea. Calcutta, Ind. Mus. Notes, **5**, 1903, (185-189, with pls.). [4419 4819]. 449

**Nodier**. Familiarité observée chez les lépidoptères. Feuille jeunes natural., Paris. (sér. 4), **33**, 1903, (203-204). [4419]. 450

**Norman**, A. M. Notes on the Natural History of East Finmark. Including "Notes on some copepoda from the Arctic Seas collected in 1890 by the Rev. Canon A. M. Norman, F.R.S. By. Thomas Scott, F.L.S." Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (1-32, pls. I-IV); Insecta, *ib.*, (166-173). [4227 db 4231 4427 db 4431 4627 db 4631 4827 db 4831]. 451

**Oberthür**, C. The Hesperiiides of Brittany. Ent. Rec., London, **15**, 1903, (179-180). [4427 df 4431]. 452

**Ogilvie-Grant**, W. R. Lepidoptera. I. Rhopalocera. Nat. Hist. Sokotra, (295-318, pls. XVIII-XIX). [4427 ff 4431]. 453

**Ottolengui**, Rodrigues. A new *Saturnia* from North America. [Arizona]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (311-314). [4427 gi 4431]. 454

**Oudemans**, J[ohannes] Th[eodorus]. Etude sur la position de repos chez les lépidoptères. Amsterdam, Verh. K. Akad. Wet., 2e Sect., **10**, 1, [1903], (1-90, av. 11 pls.). [4419]. 455

**Pabst**. Die *Sphingidae* B., *Zygaenidae* B. und *Syntomidae* HS. der Umgegend von Chemnitz und ihre Entwicklungsgeschichte. Ent. Jahrb., Leipzig, **12**, 1903, (144-159). [4427 de 4415]. 456

**Packard**, Alpheus S[pring]. New generic types of Bombycine moths. New York, N.Y., J. Ent. Soc., **11**, 1903, (244-249). [4431]. 457

**Pack-Beresford**. Scotch pine injured by *Retinia buolianana*. Irish Nat., Dublin, **12**, 1903, (299). [4419 4431]. 458

**Pagenstecher**, Arnold. Tagfalter. (Wissenschaftl. Resultate der Reise Carlo Frhrn. v. Erlanger's durch Süd-Schoa, Galla u. Somaliländer). Wiesbaden, Jahrb. Ver. Natk., **55**, 1902, Abt. II, (113-204, mit 1 Taf.). [4431 4427 ff]. 459

**Perrier**, Edmond. Rapport pour le prix Da Gama Machado (Comtesse Maria von Linden): "La généalogie des Papillons est inscrite sur leurs ailes." Paris, C.-R. Acad. sci., **137**, 1903, (1128-1130). [4423]. 460

**Peters**, H. T. Die Heteroceren-Raupen (und -Puppen) des H. T. Peters'schen Manuskriptwerkes: Biologische Beiträge zur brasilianischen Schmetterlings-Fauna. Neudamm (J. Neumann), (1898-) 1901, (12, mit 10 Taf.). 25 cm. Kart. 5 M. [4427 hk]. 461

**Petersdorf**. [Eine *Lycaena*-Form]. Berliner ent. Zs., **48**, 1903, ((16)-(17)). [4431]. 462

**Petersen**, W. *Agrotis rubi* View.—*florida* Schm. Ent. Zs., Guben, **16**, (1902-03), 1902, (2). [4431]. 463

**Philpott**, A. On some new species of Lepidoptera from Southland. Wellington, Trans. N. Zeal. Inst., **35**, 1903, (246-249). [4431 4427 ik]. 464

**Pickett**, C. D. Varieties of *Dilina tiliae*. London, Proc. Ent. Soc., **1903**, (14). [4423]. 465

——— Notes on breeding *Angeronia prunaria*. Ent. Rec., London, **15**, 1903, (144-149). [4415 4423 4431]. 466

- Pictet, Arnold.** L'influence des changements de nourriture des chenilles sur le développement de leurs papillons. Aarau, Verh. Schweiz. Natf. Ges., **85**, 1902, (78); Arch. Sci. Phys., Genève, (sér. 4), **14**, 1902, (537-540). [4411]. 468
- L'influence des changements de nourriture sur les chenilles et sur la formation du sexe de leurs papillons. Arch. Sci. Phys., Genève, (sér. 4), **15**, 1903, (98-101). [4411]. 469
- Variations des papillons provenant des changements d'alimentation de leurs chenilles and de l'humidité. Aarau, Verh. Schweiz. Natf. Ges., **86**, 1903, (45-46); Arch. Sci. Phys., Genève, (sér. 4), **16**, 1903, (585-588). [4411 4423]. 470
- Piepers, [Marinus Cornelis] et Snellen, [Pieter Cornelis Tobias].** Énumération des lépidoptères hétéroères de Java. III. *Zygaenidae*. 's Gravenhage, Tijdschr. Ent., **45**, 1903, (151-242, av. 3 pls.). [4427 eg 4431]. 471
- Pierce, F. N.** Specific differences in *Lithosiidae* as determined by structure of genitalia. Entomologist, London, **36**, 1903, (81-86). [4407 4431]. 472
- Pierre, Abbé.** Mœurs de *Grapholitha conterminata* H. S. (fin). Echange, Lyon, **17**, 1902, (28-29). [4419 4431]. 473
- Poock, R. I.** Notes on the communism subsisting between a gregarious spider *Stegodyphus* sp., and the moth *Isatrachedra stegodyphobius* Wlsm. Ent. Mag., London, **39**, 1903, (167-170). [3019 4419]. 474
- Poling, Otho C.** A new *Megathymus* from Arizona. Philadelphia, Pa., Ent. News. Acad. Nat. Sci., **13**, 1902, ([97]-98, with pl.). [4427 gi 4431]. 475
- Pomerancev, D. V.** Beitrag zur Kenntnis der auf der Fichte (*Picea excelsa*) lebenden schädlichen und nützlichen Insecten. (Russ.) St. Petersburg, Izv. Lésn. Inst., **8**, 1902, (3-25, mit 1 Taf.). [4015 4019 4415 4419 4615 4619 4815 4819]. 476
- Poujade, G. A.** Description d'une nouvelle espèce de lépidoptère de Madagascar. Bul. Muséum, Paris, **1903**, (57). [4431 4427 fh]. 477
- Poulton, E. B.** Variation of *Precis actia*. London, Proc. Ent. Soc., **1903**, (32). [4423]. 478
- Mullerian group, *Rhopalocera* from British Guiana. London, Proc. Ent. Soc., **1903**, (54-56). [4427 hd 4419]. 479
- Experiments in 1893, 1894 and 1896 upon the colour-relation between Lepidopterous larvæ and their surroundings, and especially the effect of lichen-covered bark upon *Odontopera bidentata*, *Gastropacha quercifolia* etc. London, Trans. Ent. Soc., **1903**, (311-374, pls. XVI-XVIII). [4411 4431]. 480
- [Birds capturing butterflies]. Nature, London, **65**, 1903, (343-465). [5819 4419]. 481
- Prinz, Johann.** Die Zucht und die ersten Stände von *Scia annellata* Z. Wien, JahrBer. Entom. Ver., **11**, (1900), 1901, (109-112). [4419 4431]. 482
- Prout, L. B.** Some Geometrides collected by Paymaster-in-chief Gervase F. Mathew, R.N., on the Mediterranean, etc. Entomologist, London, **36**, 1903, (204-206). [4427 dm 4431]. 483
- Notes on Spanish Geometrides collected by Dr. Chapman in 1902. Ent. Rec., London, **15**, 1903, (96-98). [4427 dg 4431]. 484
- Varieties of *Angerona prunaria*. Ent. Rec., London, **15**, 1903, (144-150). [4423]. 485
- On two variable broods of *Triphaena comes*, H. B. (*Melanozonias*, (mel.) from Forres. Ent. Rec., London, **15**, 1903, (217-222). [4423 4431]. 487
- Püngeler, Rudolf.** *Deilephila siehei* n. sp. Berliner ent. Zs., **47**, 1902, [1903], (235-238, mit 1 Taf.). [4431]. 488
- Zur Naturgeschichte der *Lygria peloponnesiaca* Rbl. Berliner ent. Zs., **48**, 1903, (321-322). [4419 4431]. 489
- Neue Macrolepidopteren aus Palaestina. D. ent. Zs. Iris, Berlin, **14**, (1901), 1902, (331-333). [4431]. 490
- *Tephroclystis thalictrata* n. sp. D. ent. Zs. Iris, Berlin, **15**, 1902, (137-140, mit 1 Taf.). [4431]. 491

**Püngeler, Rudolf.** *Nola tigranula* n. sp. D. ent. Zs. Iris, Berlin, **15**, 1902, (141-142, mit 1 Taf.). [4431]. 492

Neue Macrolepidopteren aus Palaestina. D. ent. Zs. Iris, Berlin, **15**, 1902, (143-146, mit 1 Taf.). [4427 ei 4431]. 493

Neue Macrolepidopteren aus Centralasien. [Forts.] D. ent. Zs. Iris, Berlin, **15**, 1902, (147-160, mit 2 Taf.). [4427 e 4431]. 494

*Caradrina wulschlegeli* n. sp. Soc. Entomol., Zürich, **17**, 1903, (145-147). [4427 di 4431]. 495

**Quall, A.** On the antennae of *Hepialidae*. London, Trans. Ent. Soc., **1903**, (499-507, pl. xix). [4407]. 496

On *Charagia virescens* Dbld. Wellington, Trans. N. Zeal. Inst., **35**, 1903, (249-255). [4415 4431]. 497

**Quaintance, A[ltus] L[acy].** The pickle worm (*Margaronia nitidalis*). Agric. Exp. Sta., Georgia, Experiment, Bull., No. **54**, 1901, (71-94, with 3 pls.); [review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., **13**, 1902, (871-872). [4431]. 498

**Reading, J. H.** A collecting trip south. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (116-118). [4427 gh]. 499

**Rebel, H.** Neue Pyraliden, Pterophoriden und Tineen des palaearctischen Faunengebietes. D. ent. Zs. Iris, Berlin, **15**, 1902, (100-126, mit 1 Taf.). [4431]. 500

Neue Pyraliden aus Algerien und Westasien. D. ent. Zs. Iris, Berlin, **16**, 1903, (1-8). [4431]. 501

Eine neue Noctuide von der Sinai-Halbinsel. D. ent. Zs. Iris, Berlin, **16**, 1903, (68-70, mit 1 Taf.). [4431]. 502

Lepidopteren aus Morea. Nachtrag. Berliner ent. Zs., **48**, 1903, (243-249). [4431 4427 dl]. 503

Neue Lepidopteren aus Bosnien und der Hercegovina. Wien, Verh. ZoolBot. Ges., **51**, 1901, (798-806). [4427 dk 4431]. 504

**Benton, W.** A list of the Lepidoptera of Roxlurghshire. Entomologist, London, **36**, 1903, (130-135). [4427 de 4403]. 505

**Rey.** [Umgürtungsfaden der Puppen von *Gonopteryx rhamni* L. u. die Flügelbildung.] Berliner ent. Zs., **48**, 1903, ((3)). [4431]. 506

[*Precis octaria* u. *amestris*.] Berliner ent. Zs., **48**, 1903, ((4)). [4431]. 507

[Zur Mimikry - Theorie.] Berliner ent. Zs., **48**, 1903, ((5)-(6)). [4419]. 508

**Rey, Eugène.** Einiges über Schreck- oder Warnfarben bei Schmetterlingen. Insektenbörse, Leipzig, **20**, 1903, (131-132). [4419]. 509

**Riesen, A.** Zum Heimaths-Nachweis von *Ag. v. is fugax* Tr. Stettiner ent. Ztg., **64**, 1903, (37-38). [4431]. 510

Zum Heimaths-Nachweis der *Agrotis cursoria*-Varietäten *obscura* Stgr. und *sagitta* Stgr. Stettiner ent. Ztg., **64**, 1903, (358). [4431]. 511

**Riffarth, H.** Nochmals Ch. Oberthür's Etudes d'entomologie, vol. 21 [betr. *Heliconius*]. Berliner ent. Zs., **47**, 1902, [1903], (157-166). [4431]. 512

**Ritsema Bos, J[an].** Ueber das schädliche Auftreten von *Retinia turionana* nebst allgemeinen Bemerkungen über die Lebensweise der Retinien überhaupt. Centralbl. Bakt., Jena, Abt. 2, **10**, 1903, (241-250). [4419 4431]. 513

**Rivers, J. J.** Discovery of another food plant of *Uranotes* (*Theckla*) *melinus*. Hub. Los Angeles, Bull. So. Cal. Acad. Sci., **1**, 1902, (41-42). [4419 4431]. 514

Butterfly emigrants. Los Angeles, Bull., So. Cal. Acad. Sci., **1**, 1902, (90). [4427 gi]. 515

**Robinson, Jirta.** A trip after *Papilio homerus* [in Jamaica]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (17-21). [4431]. 516

**Rocquigny-Adanson, G. de.** Aire de *Papilio podalirius*. Feuille jeunes natural., Paris, (sér. 4), **31**, 1903, (19). [4431 4427 df]. 517

*Rhodocera cleopatra* L. Feuille jeunes natural., Paris, (sér. 4), **33**, 1902, (33). [4427 df 4431]. 518

*Epinephela janira* L. Feuille jeunes natural., Paris, (sér. 4), **33**, 1902, (33); 1903, (84-85, 205). [4423 4431]. 519

**Rocquigny-Adanson**, G. de. *Rhodocera cleopatra*. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (52). [4427 df 4431]. 520

———— *Epinephele hyperanthus* L. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (108). [4423 4431]. 521

———— Les Argynnidés du centre de la France. Feuilles jeunes natural., Paris, (sér. 4), **33**, 1903, (119-123). [4431 4427 df 4419]. 522

———— *Vanessa antiopa*. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (151). [4431 4423]. 523

———— Géonémie de *Papilio podalirius* L. Limite septentrionale de son extension en France et en Belgique. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (163). [4427 df 4431]. 524

———— *Oenonympha hero* L. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (169). [4423 4427 df 4431]. 525

———— *Argynnis pandora* Schiff. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (169-170). [4427 df 4431]. 526

———— A propos de la géonémie du *Podalirius*. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (205). [4427 df 4431]. 527

———— *Papilio machaon*. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (205). [4415 4431]. 528

———— *Lasiocampa quercus* L. Feuille jeunes natural., (sér. 4), **34**, 1903, (19-20). [4431 4419]. 529

**Rodžianko**, Vladimir Nikolajevič. Einige Beobachtungen über *Pammene rediella* Clerck. (Tortricina, Lepidoptera.) (Russ.) Moskva, Dnev. Zool. Otd. Imp. Obsc. Iľub., jest, **III**, 5, 1903, (28-41). 35 cm. [4419 4431]. 530

**Röber**, J. Lepidopterologisches. Stettiner ent. Ztg. **64**, 1903, (337-358). [4431]. 531

———— Zwei neue Mophiden. Soc. Entomol., Zürich, **17**, 1903, (153-154). [4427 he ed 4431]. 531a

———— Neue *Caligo*-Arten. Soc. Entomol., Zürich, **18**, 1903, (145-147). [4431]. 532

**Rondou**, P. Catalogue des lépidoptères des Pyrénées. Bordeaux, Actes soc. linn., (sér. 6, 7), **57**, 1902, (177-355). [4419 4427 df 4431]. 533

———— Note sur les chenilles de *Daphnis nerti* L. trouvées dans la Gironde. Bordeaux, Actes soc. linn., **58**, 1903, (Proc. verb., CCLXX). [4431 4415]. 534

**Rothke**, Max. Ueber einige Zucht- und Akklimatisationsversuche mit dem chinesischen Eichenseidenspinner (*Antheraea pernyi* Guér.) im nordwestlichen Deutschland. Ent. Jahrb., Leipzig, **12**, 1903, (160-164). [4431 4419]. 535

———— Einige kurze Bemerkungen über *Limenitis ursula* F. und *arthemis* Drur. Insektenbörse, Leipzig, **20**, 1903, (116). [4431]. 536

**Rothschild**, Hon. W. Some new *Cossidae* from Queensland, bred by Mr. F. P. Dodd. Nov. Zool., Tring, **10**, 1903, (306-308). [4427 id 4431]. 538

———— Some new butterflies and moths. Nov. Zool., Tring, **10**, 1903, (309-312). [4431]. 539

———— and **Jordan**, K. A revision of the Lepidopterous family *Sphingidae*. Nov. Zool., Tring, **9**, 1903, Supplement, (CXXXV + 972, 64 pls.). [4431 0070]. 539a

———— Monograph of *Charaxes* and the allied Prionopterous genera (conclusion). Nov. Zool., Tring, **10**, 1903, (326-342). [4431]. 540

———— Some new or unfigured Lepidoptera. Nov. Zool., Tring, **10**, 1903, (481-487). [4431]. 541

———— Some new African *Papilios*. Nov. Zool., Tring, **10**, 1903, (488, 489). [4427 f 4431]. 542

———— Lepidoptera collected by Oscar Neumann in North-east Africa. Nov. Zool., Tring, **10**, 1903, (491-542). [4427 fb 4431]. 543

**Rothschild**, N. C. v. Warren, W.

**Rougemont**, F. de. Observations entomologiques. Arch. Sci. Phys., Genève, (sér. 4), **16**, 1903, (731-732). [4231 4431]. 544

———— Les pluies de chenilles. Arch. Sci. Phys., Genève, (sér. 4), **16**, 1903, (735-736). [4419]. 545

**Rowland-Brown, H.** An aberration of *Melitaea didyma*. Entomologist, London, **36**, 1903, (153-154, with fig.). [4423 4431]. 546

**Rudow.** Die Schmarotzer unserer einheimischen Schwärmer (Sphingiden). Insektenbörse, Leipzig, **20**, 1903, (196). [4419 4431]. 547

——— Schmarotzer der einheimischen Spinner. Insektenbörse, Leipzig, **20**, 1903, (196-197). [4419 4431]. 548

**Ruhe, H.** Eine albinotische Form von *Vanessa polydora*? Insektenbörse, Leipzig, **20**, 1903, (205). [4431]. 549

**Russell, G. M.** Notes on *Geometra vernaria*. Entomologist, London, **36**, 1903, (227-228). [4415 4431]. 550

**Sahlberg, John.** Entomologische Forschungsreisen in den Mittelmeergegenden und Central-Asien in den Jahren 1895-1896 und 1898-1899. (Schwedisch) Helsingfors, Öfvers. F. Vet. Soc., **45**, [No. 9], 1902-1903, (1-34); [No. 17], (1-38). [4427 4627 4827 dl dm ei fa fb]. 551

**Sajó, Karl.** Das grosse Nachtpfauenauge (*Saturnia pyri*). Natur u. Schule, Leipzig, **2**, 1903, (229-232). [4431]. 552

**Sanderson, E[zra] D[wight].** Three orchard pests [*Steganopterycha pyricolana*, *Euzophora semifunereal* and *Cicada septendecim*]. Agric. Exp. Sta., Delaware, Newark Bull., No. **53**, 1901, (19, with 11 figs.). 23 cm.; [review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., **13**, 1902, (872-873). [2403 4031 4419 4431]. 553

——— Some destructive caterpillars [*Hyphantria cunea*; *Hemerocampa leucostigma*; and *Clisiocampa americana*]. Agric. Exp. Sta., Delaware, Newark Bull., No. **56**, 1902, (28, with 14 figs.). 23 cm.; [review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., **14**, 1902, (372). [4419 4431]. 554

——— Report of the entomologist. [Including notes on *Aphis* and *Euzophora semifuneralis*.] Agric. Exp. Sta., Delaware, Newark Rep., **1901**, (127-199, with 6 pls., 16 figs.); [review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., **14**, 1902, (268-269). [2403 2427 gh 4031 4419 4431]. 555

**Sasaki, ([hūjirō]).** Notes on the leaf-miners of the fruit-trees. (Japanese) Dobuts. Z., Tokyo, **15**, 1903, (381-383). [4419 4431]. 556

**Schaus, William.** New *Noctuidae* from tropical America. New York, N.Y., J. Ent. Soc., **11**, 1903, (230-236). [4427 h.]. 557

**Schenk, Otto.** Die antennalen Hautsinnesorgane einiger Lepidopteren und Hymenopteren mit besonderer Berücksichtigung der sexuellen Unterschiede. Zool. Jahrb., Jena, Abt. f. Anat., **17**, 1903, (573-618, mit 2 Taf.). [4407 4607]. 558

**Schille, Fr.** Ein Beitrag zur Schmetterlingsbiologie. Soc. Entomol., Zürich, **16**, 1902, (146); **17**, 1903, (186). [4419]. 559

**Schimpf, Gustav.** Schmetterlingsbiologie aus Süd-Amerika. Naturfreund, Witten, **1**, 1902, (73-76). [4419]. 561

**Schmidt, J.** Abart von *Pararge hiera* F. Ent. Zs., Guben, **16**, (1902-03), 1903, (89-90). [4431]. 562

**Schreiber, Carl.** Raupen-Kalender. [Nach den Futterpflanzen geordnet für das mitteleuropäische Faunengebiet.] (Forts.) D. ent. Zs. Iris, Berlin, **14**, (1901), [1902], (277-326). [4419 4427 d]. 563

**Schröder, Chr.** Die Zeichnungs-Variabilität von *Abrazas grossularia* L. gleichzeitig ein Beitrag zur Descendenz-Theorie. Allg. Zs. Ent., Neudamm, **8**, 1903, (105-119, 145-157, 177-194, 228-234). [4431 4423]. 564

——— Kritik der von Herrn Dr. E. Fischer (Zürich) aus seinen „Lepidopterologischen Experimentalforschungen“ gezogenen Schlüsse auf Grund einer neuen Erklärung des Wesens derselben. Allg. Zs. Ent., Neudamm, **8**, 1903, (437-447). [4423 4411]. 565

**Schrottky, C.** Beitrag zur Kenntniss der Syntomiden Argentinien. D. ent. Zs. Iris, Berlin, **15**, 1902, (133-136). [4427 li 4431]. 566

**Schüttze, K. T.** Die Kleinschmetterlinge der sächsischen Oberlausitz. [Tl 3: Tineina, Micropterygina.] D. ent. Zs. Iris, Berlin, **15**, 1902, (1-49). [4427 de]. 567

——— Ein neuer Kleinschmetterling. [*Anacampsis biformella* n. sp.]

- Ent. Zs., Guben, **16**, (1902-03), 1902, (13). [4431]. 568
- Schultz**, Oskar. Melanismus bei *Acronycta rumicis* L. Soc. Entomol., Zürich, **16**, 1902, (170). [4423 4431]. 569
- Ueber eine bemerkenswerte Form von *Apatura iris* L. Soc. Entomol., Zürich, **17**, 1903, (161). [4427 de 4423 4431]. 570
- Ueber einige aberrative Formen von *Aglia tau* L. darunter ab. *caecata* Schultz. Soc. Entomol., Zürich, **17**, 1903, (178-179). [4427 de 4423 4431]. 571
- Beiträge zur Gattung *Chrysophanus* HB. Nyt. Mag. Naturv., Kristiania, **41**, 1903, (23-26). [4423]. 572
- *Pamphila palaemon* Pall. ab. *melicertes* m. und *Pamph. silvius* Knoch. ab. *catella* m. D. ent. Zs. Iris, Berlin, **15**, (1902), 1903, (321-323). [4431]. 573
- *Vanessa 1-album* Esp. aberr. nov. *chelone*. D. ent. Zs. Iris, Berlin, **15**, (1902), 1903, (324-325). [4431]. 574
- Ueber eine interessante Form von *Smerinthus populi* L. (ab. *decorata* m.). Berliner ent. Zs., **47**, 1902, [1903], (288). [4431]. 575
- Varietäten und Aberrationen von *Lycæna eumedon* Esp. Uebersicht über die Variabilität dieser Species. Berliner ent. Zs., **48**, 1903, (263-269). [4431 4423]. 576
- Beschreibung einiger gynandromorphen Exemplare aus der Familie der Pieriden und Nymphaliden. Berliner ent. Zs., **48**, 1903, (270-273). [4411]. 577
- Einige interessante Abnormalitäten und Aberrationen aus der Lepidopteren-Sammlung des Herrn A. Pilz (Heinrichau). Berliner ent. Zs., **48**, 1903, (297-300). [4423]. 578
- Ueber Kreuzungsprodukte von *Lasiocampa quercus* L. var. *sicula* Stdgr. ♂ × var. *alpina* Frey ♀ und deren Rückkreuzung mit *Las. quercus* var. *sicula* Stdgr. Ent. Zs., Guben, **16**, 1902-03, 1903, (94). [4423 4431]. 579
- Schulz**, Gustav Leo. Eine neue Varietät von *Arctia maculosa* Gerning. D. ent. Zs. Iris, Berlin, **15**, (1902), 1903, (328-329). [4431]. 580
- Serebriankov**, A. V. Ueber den grossen Kiefernspinner (*Gastropacha pini* Ochsh.) (Russ.) St. Petersburg, Izv. Leśn. Inst., **7**, 1901, (29-102, mit 1 Taf.). [4403 4431 4419]. 581
- Seufferheld**, C. Die Bekämpfung des Heu- und Sauerwurmes in den Weinbergen der Lehranstalt im Jahre 1902. Mitt. Weinbau, Geisenheim, **15**, 1903, (65-69). [4403]. 582
- Sharp**, Miss E. M. B. Description of a new species of the family *Lemoniidae*. Entomologist, London, **36**, 1903, (310). [4431]. 583
- A monograph of the genus *Teracolus*, pts. 9, 10 [1901], pt. 11 [1902]. London, (101-156, pls. xxxii-xliii). 4to. [4431]. 584
- Sharpe**, E. M. The butterflies collected in Equatorial Africa by Captain Clement Sykes. Entomologist, London, **36**, 1903, (5-8, 36-40). [4431]. 585
- Sheldon**, W. G. Lepidoptera at Pont-du-Gard and Digne. Ent. Rec., London, **15**, 1903, (193-196). [4427 df 4431]. 586
- Shelford**, R. A curious protective device in a Lepidopterous larva. Zoologist, London, (Ser. 4), **7**, 1903, (161-163, pl. iv). [4419]. 587
- Sherman**, Franklin, jun. c. Brimley, C. S. Beautiful moths [Heterocera]. Amer. Inv., Washington, D.C., **10**, 1903, (93-95). [4431]. 589
- Slépl**, P. Apparition tardive de *Libythea celtis*. Feuille jeunes natural., Paris, (sér. 4), **33**, 1902, (34). [4423 4431]. 590
- Encore *Euprepia pudica*. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (51). [4419 4431]. 591
- Contribution à l'histoire naturelle de *Charaxes jasius*. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (56-64, av. 1 pl.). [4431 4419]. 592
- Un lépidoptère nouveau pour la Provence (*Plusia aurifera*). Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (101-102). [4427 df 4431]. 593

**Stépi, P.** Evolution d'*Acherontia atropos*. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (104-105). [4415 4431]. 594

—— Satyrides atteints d'albinisme. (Liste supplémentaire). Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (134). [4423 4431]. 595

**Silfvenius, A[ntti] J[hannes].** Über im Wasser lebende Schmetterlinge und auf Land lebende Trichopteren. (Finnisch) Luonnon Ystävä, Helsingfors, **1903**, 6-8, (125-128). [4419 3819]. 596

**Simpson, C. B.** Report upon an investigation of the codling moth [*Carpocapsa pomonella*] in Idaho in 1900. Washington, D.C., Bull. U. S. Dept. Agric., Div. Ent., (N. Ser.), No. **30**, 1901, (51-75). [4419 4427 gi 4431]. 597

—— Observations upon the life history of the codling moth. [*Carpocapsa pomonella*.] Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., No. **40**, 1903, (63-65). [4415 4431]. 598

—— The codling moth. [*Carpocapsa pomonella*.] With bibliography. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., No. **41**, 1903, (105, with map and pl.). [4419 4431]. 599

**Skinner, Henry.** A new species of *Nyctalemon* [*N. curvula* n. sp.]. Philadelphia, Pa., Proc. Acad. Nat. Sci., **55**, 1903, (298). [4431]. 600

—— Lepidoptera of Beulah, New Mexico. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1902, (36-38). [4427 gi 4431]. 601

—— New species of *Rhopalocera* [nn. spp. in *Lycerna*]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (15). [4431]. 602

—— A new moth [*Psychophora fasciata* n. sp.] from Alaska. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (141-143). [4427 ga 4431]. 603

—— [*Hesperiidae* from the United States]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (183). [4427 gf 4431]. 604

—— A new *Papilio*. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (183). [4431]. 605

(n 2-9053)

**Skinner, Henry.** [Criticism of Dyar's classification of *Psychophora*]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (192). [4431]. 606

—— A new Hesperid [*Pamphila vierecki* n. sp.]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (213-214). [4431]. 607

—— A new species of *Melitaea*. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (304-305). [4431]. 608

—— A butterfly new to the United States. [*Myacelia skinneri* in Dry cañon, Alamogordo, New Mexico]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (321). [4427 gi 4431]. 609

—— A hesperid new to our fauna. [*Nisoniades brunnea* Herr Schaeef from Florida]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (110). [4427 gh 4431]. 610

—— A new Sesiid [*Albuna beutenmülleri* n. sp.]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (126). [4431]. 611

—— A new variety of *Sphinx*. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (168). [4431]. 612

—— The *Psychophora* mix up. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (200). [4431]. 613

**Sløvøgt, B.** Die Raupe von *Stauropus fagi*. Soc. Entomol., Zürich, **16**, 1902, (185-186). [4419 4431]. 613a

—— Ueber, namentlich bei Noctuen, zunehmenden Melanismus. Soc. Entomol., Zürich, **17**, 1902, (43). [4423]. 614

—— Ist *Hadena adusta* Esp. var. nova *bathensis* Lutzau nur die schon bekannte var. *virgata* Tutt oder nicht? Soc. Entomol., Zürich, **17**, 1902, (89). [4431]. 615

**Slingerland, M. V.** The palmer worm. [*Ypsalophus pomatellus*]. Agric. Exp. Sta., New York, (Cornell station), Ithaca, Bull., No. **187**, 1901, (77-101, with 9 figs.); [review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., **13**, 1901, (68). [4431]. 616

—— Three unusual strawberry pests. [*Cacocia obsoletana*, *Harpalus caliginosus* and *H. pennsylvanica*]. Agric. Exp. Sta., New York (Cornell



Station), Ithaca, Bull., No. 190, 1901, (143-164, with 15 figs.); [review], Washington, D.C., U. S. Dept. Agric., Off. Exp. Sta. Rec., 13, 1901, (371-372). [4419 4431 4831]. 617

**Smith, E. J.** Lantern trapping [of moths]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (207-207). [4403]. 618

——— Pests and Grease. [Criticism of paper by F. W. Dod.] Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (244-246). [0060 4403]. 619

**Smith, G.** The temperature of insects. Zoologist, London, (Ser. 4), 6, 1902, (287-293). [2411 4411]. 620

**Smith, John B[ernhardt].** New noctuids for 1903, No. 4, with notes on certain described species. Philadelphia, Pa., Acad. Nat. Sci. Trans. Ent. Soc., 29, 1903, (191-224, with pl.). [4431]. 621

——— A revision of the boreal American species of *Nonagria* Ochs. Washington, D.C., Proc. Ent. Soc., 5, 1903, (311-321, with pl.). [4427 g 4431]. 622

——— [Notice of preliminary revision of the species of *Nonagria*. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (56). [4431]. 623

——— New noctuids for 1903, No. 2, with notes on *Mamestra* and *Scotogramma*. New York, N.Y., J. Ent. Soc., 11, 1903, (1-23, with pl.). [4431]. 624

——— New noctuids for 1903. No. 5. New York, N.Y., J. Ent. Soc., 11, 1903, (188-193). [4431]. 625

——— Two strawberry pests [*Phoxopteria comptana* and *Aphis forbesi*]. Agric. Exp. Sta., New Jersey, New Brunswick, Bull., No. 149, 1901, (17, with 2 pls.). 23 cm.; [review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., 13, 1901, (161). [4031 4419 4431]. 626

**Smits, Alb.** Colonie de *Boletobia fuliginosa*. Feuille jeunes natural., Paris, (scr. 4), 33, 1903, (224). [4419 4421]. 627

——— Sur le son émis par les chenilles. Feuille jeunes natural., Paris, (scr. 4), 33, 1903, (224). [4419]. 628

**Smyth, Ellison A., jun.** Identity of *Illemaris tenuis* and *I. diffinis*. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (82). [4431]. 629

——— *Morpho thoosa* (sp. nov.). Description of a new variety of *Morpho polyphemus* Dby. Hew. from Mexico. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (85-87, with pl.). [4427 ha 4431]. 630

——— [*Nisoniades naevius* in South Carolina]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (333). [4427 gh 4431]. 631

**Snellen, P[ieter] C[ornelis] T[obias].** Beschreibungen neuer exotischer Tortricinen, Tineinen und Pterophorinen. (Holländisch) 's Gravenhage, Tijdschr. Ent., 46, [1903], (25-57, 2 Taf.). [4431]. 632

——— v. Piepers, [Marinus Cornelis].

**Snow, F[rancis] H[untington].** List of Coleoptera and Lepidoptera collected in Hamilton, Morton and Clark counties, Kansas 1902 and 1903. Lawrence, Kan. Univ. Sci. Bull., 2, 1903, (191-208). Separate 27.8 cm. [4427 gi 4827 gi]. 633

**Snyder, A. J.** A day's experiences [collecting butterflies in Colorado]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (50-54). [4427 gi 4431]. 634

**South, R.** Catalogue of the collection of palaearctic butterflies formed by the late John Henry Leech and presented to the Trustees of the British Museum by his mother Mrs. Eliza Leech. London, 1902, (vi + 228, 2 pls.). 4to. [Review], Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (526). [4403 4427 4431]. 635

**Speiser, P[aul].** Die Schmetterlings-fauna der Provinzen Ost- und Westpreussen. (Beiträge z. Naturkunde Preussens, hrsg. v. d. physik.-ökon. Gesellsch. Königsberg. N. 9.) Königsberg i. Pr. (W. Koch in Komm.), 1903, (III + 148). 30 cm. [4427 dr]. 636

**Spengel, [Joh. Wilh.]** Ueber Alerationen des Schwalbenschwanzes. Giessen, Ber. Ges. Natk., 33, 1899-1902, (206-207). [4431]. 637

**Splendore, Alfonso v. Lutz, A.**

- Stebbing, F. P.** Insect pests of the sugar cane in India. Calcutta, Ind. Mus. Notes, **5**, 1903, (64-91). [2419 3819 4019 4419 4619 4819]. 638
- Departmental notes on insects that affect forestry No. 2. Calcutta, 1903, (V-VII + 151-334, with 13 pls.). 25 cm. [2419 4031 4231 4431 4631 4831]. 639
- Stertz, Otto.** Eine neue Geometride aus dem Wallis. [*Larentia püngeleri* n. sp.] D. ent. Zs. Iris, Berlin, **15**, 1902, (96-99, mit 1 Taf.). [4431]. 640
- Eine neue interessante Form von *Polia dubia* Dnp. aus den Hautes Pyrénées. D. ent. Zs. Iris, Berlin, **15**, 1902, (180-181). [4431]. 641
- Stichel, H.** Synonymisches Verzeichnis bekannter *Eucides*-Formen mit erläuternden Bemerkungen und Neubeschreibungen. Berliner ent. Zs., **48**, 1903, (1-34, mit 1 Taf.). [4431]. 642
- [*Discophora muscina* Stich. n. sp.]. Berliner ent. Zs., **48**, 1903, ((4)-(5)). [4431]. 643
- [Ueber *Heliconius*-Formen]. Berliner ent. Zs., **48**, 1903, ((14)). [4431]. 644
- [Zwitter v. *Smerinthus*]. Berliner ent. Zs., **48**, 1903, ((18)). [4411]. 645
- Kritische Bemerkungen über die Artberechtigung der Schmetterlinge. II. D. ent. Zs. Iris, Berlin, **15**, 1902, (50-95, mit 2 Taf.). [4407 4431]. 646
- Brassolidarum novarum descriptio ad tempus proposita. Insektenbörse, Leipzig, **20**, 1903, (389). [4431]. 647
- Stitz, H.** Zum Genitalapparat der Lepidopteren. Zool. Anz., Leipzig, **27**, 1903, (135-137). [4407]. 648
- Strand, Embr.** Neue norwegische Schmetterlingsformen Arch. Math. Naturw., Kristiania, **25**, 1903, (24). [4423 4427 da]. 649
- Eine neue arktische *Gelechia*-Art. Berliner ent. Zs., **47**, 1902, [1903], (155-156). [4431]. 650
- Eine neue norwegische Gelechide (*Gelechia* (*Lita*) *nordlandicella* Strand n. sp.). Ent. Zs., Guben, **13**, (1902-03), 1902, (21). [4431]. 651  
(n 2-9053)
- Suffert, E.** Eine neue *Ornithoptera*. [*O. zacheri* n. sp.]. Insektenbörse, Leipzig, **20**, 1903, (235-236). [4431]. 652
- Swinhoe, C.** On the genus *Deilemera*, Hubner. London, Trans. Ent. Soc., **1903**, (53-84, pls. III, IV). [4431]. 653
- A revision of the Old World *Lymantriidae* in the national collection. London, Trans. Ent. Soc., **1903**, (375-498). [4427 d 4431]. 654
- New species of Eastern and African Lepidoptera. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (499-511). [4427 e f 4431]. 655
- Descriptions of new Eastern moths. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (193-200). [4427 eg 4431]. 656
- Reports on the Heterocera. Fascic. Malay. Zool., **1**, (51-109). [4419 4427 eg 4431]. 657
- Theinart, B.** *Protoparce contortuli*. Ent. Zs., Guben, **16**, (1902-03), 1903, (86-87). [4431]. 658
- Thiele, [Arctia caja L. ab.].** Berliner ent. Zs., **48**, 1903, ((29)). [4431]. 659
- Thieme, Otto.** Zwei neue Satyriden aus der Cordillere von Südamerika. Berliner ent. Zs., **47**, 1902, [1903], (281-282). [4427 hm 4431]. 660
- Eine neue *Tithorea* vom Chauchamayo. Berliner ent. Zs., **47**, 1902, [1903], (282). [4431]. 661
- *Selenophanes supremus* var. *ditatus* Thieme. Berliner ent. Zs., **48**, 1903, ((12)-(13)). [4431]. 662
- [*Melitaeu matura* var. *wolfensbergeri*]. Berliner ent. Zs., **48**, 1903, ((20)-(22)). [4431]. 663
- [Südafrikan. Satyriden]. Berliner ent. Zs., **48**, 1903, ((31)). [4431]. 664
- Thurau, [F.].** [*Colias nastes* Bsd. abb.]. Berliner ent. Zs., **48**, 1903, ((30)). [4431]. 665
- *Colias nastes* Bsd. var. *merdandi* Zett und ihre Aberrationen. Berliner ent. Zs., **48**, 1903, (113-116). [4431]. 666
- Neue Lepidopteren aus Ost- und Central-Afrika im Königl. zoologischen Museum zu Berlin. Berliner ent. Zs., **48**, 1903, (301-314). [4427 ff 4431]. 667

- Thurau**, [F.]. Neue Rhopaloceren aus Ost-Afrika. Ergebnisse der Nyassa-See und Kinga-Gebirgs-Expedition der Hermann und Elise geb. Heckmann-Wentzel-Stiftung. Berliner ent. Zs., **48**, 1903, (117-144, mit 1 Taf.). [4431]. 668
- Thurnall**. *Dianthoecia*, mimicry and concealment. Ent. Mag., London, **39**, 1903, (201). [4419]. 669
- Tiedemann**, von. Die Zucht von *Arctia flava* in zwei Generationen. Ent. Zs., Guben, **16**, (1902-03), 1902, (9-10, 25-26, 29-30). [4403 4431]. 670
- Tomola**, F. *Sesia empiformis* Esp. var. *hungarica* mihi n. var. Wien, JahrBer. Entom. Ver., **12**, (1901), 1902, (13-16). [4431]. 671
- Trautmann**, W. Zwei neue Macro-Lepidopterenformen. [*Epichnopteryx pulla* var. *völkeri*, *Xylomyges conspicillaris* var. *grisea*.] Ent. Zs., Guben, **16**, (1902-03), 1903, (78-79). [4431]. 672
- Trimen**. [Resemblances, *Planema pseudacraea*, *Papilio*.] London, Proc. Ent. Soc., **1903**, (38-41). [4419]. 673
- Trost**, Alois. Beitrag zur Lepidopteren-Fauna der Steiermark. Graz, Mitt. Natw. Ver. Steierm., **1902**, 1903, (328-340). [4427 dk 4431]. 674
- Trost**, C. Erfahrungszahlen zum Gebrauche bei der Bekämpfung des Kiefernspinners (*Gastropacha pini*). Tharander forstl. Jahrb., **53**, 1903, (92-119). [4403 4431]. 675
- Tschetwerikoff**, S. *Dendrolimus laricis* Tschwr. n. sp. und schädlicher Spinner der paläarktischen Region. Soc. Entomol., Zürich, **18**, 1903, (89-90). [4427 d 4419 4431]. 676
- Turner**, A. Jefferis. New Australian Lepidoptera, with synonymic and other notes. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (1-26). [4403 4427 ic 4431]. 677
- Revision of Australian Lepidoptera. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, **28**, 1903, (42-92). [4427 ic 4431]. 678
- Turner**, H. J. Notes on various Coleophorids. Ent. Rec., London, **15**, 1903, (88-92). [4431]. 679
- Tutt**, T. W. A Natural History of the British Lepidoptera. Vol. III. London and Berlin. July 1902, (XI + 558); [review], Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (130-131). [4403]. 680
- Tutt**, T. W. Some genera of the Amorphenid and Hemarid Sphingids. Ent. Rec., London, **15**, 1903, (42-43). [4431]. 681
- Some genera of the Eumorphid Sphingids. Ent. Rec., London, **15**, 1903, (75-76). [4431]. 682
- Genera of the Eumorphid and Daphnid Sphingids. Ent. Rec., London, **15**, 1903, (100-101). [4431]. 683
- Revision of the European Alucitides. Ent. Rec., London, **15**, 1903, (251-254). [4427 d]. 684
- Uffeln**. Zur Kenntniss einiger Eulen-Arten. D. ent. Zs. Iris, Berlin, **15**, (1902), 1903, (316-320). [4431]. 685
- Vassiljev**, I. V. Der Baumweissling (*Aporia crataegi*, L.) und dessen Parasiten. (Russ.) Trd. B. entom. Učen. Kom. M. Zeml., St. Petersburg, **III**, No. 8, 1902, (36, mit 16 Fig.) [4215 4219 4419 4615 4619]. 686
- Vaucher**, A. Notes sur les *Argynnis* du Maroc. Feuille jeunes natural., Paris, (sér. 4), **33**, 1902, (34). [4427 fa 4431]. 687
- Valey**. [Birds capturing butterflies]. Nature, London, **65**, 1903, (273, 392). [5819 4419]. 688
- Völker**, Ulrich. Ein Beitrag zur Naturgeschichte von *Valeria oleagina*. Ent. Zs., Guben, **16**, (1902-03), 1902, (38-39). [4419 4431]. 689
- Voroncov**, Alexander. *Grapholitha nigricans* H. S. in den Fichtenwäldern des Gouv. Këlce während der Jahre 1890-1895. (Russ.) St. Petersburg, Hor. Soc. Ent. Ross., **36**, 1903, (CLIII-CLVI). [4419]. 690
- Wagner**, F. *Pharepis* (recte *Therapis*) *cronymaria* Schiff. nov. ab. Soc. entomol., Zürich, **18**, 1903, (92-93). [4427 dk 4431]. 691
- *Zygaena carniolica* Sc. Insektenbörse, Leipzig, **20**, 1903, (29). [4431]. 692
- Walsingham**, Lord. Description of a new species of *Batrachedra* associated with spiders in S. Africa. Ent. Mag., London, **39**, 1903, (166-167). [4419 4427 fg 4431]. 693

**Walsingham, Lord.** Spanish and Moorish Microlepidoptera [continued]. Ent. Mag., London, **39**, 1903, (179-187, 203-214, 262-268, 292, 293). [4427 dg fa 4431]. 694

——— Review [of Dyar's list of N. American Lepidoptera]. Ent. Mag., London, **39**, 1903, (257-261). [4427 gl 695]

——— Lepidoptera. III. *Pterophoridae* and *Tineina*. Nat. Hist. Sokotra, (343-356, pl. XXI). [4427 ff 4431]. 696

**Warnecke, Georg.** Beitrag zur Lepidopterenfauna Göttingens. Insektenbörse, Leipzig, **20**, 1903, (59-60). [4427 de]. 697

——— Beiträge zur Lepidopterenfauna Schleswig-Holsteins. Heimat, Kiel, **13**, 1903, (180-183). [4427 de]. 698

**Warren, W.** New moths from British New Guinea. Nov. Zool., Tring, **10**, 1903, (120-126). [4427 ia 4431]. 699

——— New *Drepanulidae*, *Thyrididae*, *Uraniidae* and *Geometridae* from the Oriental region. Nov. Zool., Tring, **10**, 1903, (255-270). [4427 eg 4431]. 700

——— New African *Thyrididae* and *Geometridae* in the Tring Museum. Nov. Zool., Tring, **10**, 1903, (271-278). [4427 f 4431]. 701

——— New *Uraniidae*, *Drepanulidae* and *Geometridae* from British New Guinea. Nov. Zool., Tring, **10**, 1903, (343-413). [4427 ia 4431]. 702

——— and **Rothschild, N. C.** Two new species of Lepidoptera from the Wady el Natron, Egypt. Entomologist, London, **36**, 1903, (225, 226, pl. IV). [4427 fb 4431]. 703

**Waterhouse, G. A.** Descriptions and notes of Australian *Hesperidae*, chiefly Victorian. Vict. Nat., Melbourne, **20**, 1903, (52-57). [4419 4427 ic 4431]. 704

**Weed, C[larance]M[oores].** Remedies for the cankerworm. Agric. Exp. Sta., New Hampshire, Durham, Bull., No. **85**, 1901, (69-76, with 5 figs.); [review]. Washington, D.C. U. S. Dept. Agric. Off. Exp. Sta. Rec., **13**, 1902, (873). [4403 4431]. 705

**Weeks, A. G., jun.** Description of nine new Bolivian butterflies. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **27**, 1901, (353-360). [4427 hg 4431]. 706

——— Bolivian Lepidoptera. [Progress of work]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (317). [4427 hg]. 707

——— New species of butterflies from Bolivia. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (104-108). [4427 hg 4431]. 708

**Weeks, Archibald C.** Theory as to evolution of secondaries of moths of the genus *Catocala*. New York, N.Y., J. Ent. Soc., **11**, 1903, (221-226). [4419 4423 4431]. 709

**Wendlandt, P.** Die mittelhheinische *Agrotis candellisequa* Hb. *Agrotis candellisequa* var. *defasciata*, n. Ent. Zs., Guben, **16**, (1902-03), 1902, (61-62). [4431]. 710

**Werner, Aug.** *Aglia tau* L. ab. *melaina* Gross und *Aglia tau* L. var. *cupreola* m. Soc. Entomol., Zürich, **17**, 1902, (129-130). [4419 4431]. 711

——— Ueber *Aglia tau* L. ab. *melaina* Gross und *Aglia tau* L. var. *cupreola* m. Ent. Zs., Guben, **16**, (1902-03), 1902, (65-66). [4431]. 712

**Weymer, Gustav.** Einige afrikanische Lepidopteren. D. ent. Zs. Berlin, **16**, 1903, (221-235, mit 1 Taf.). [4427 f 4431]. 713

——— Zwei neue Tagfalter aus Neuguinea. Ent. Zs., Guben, **16**, (1902-03), 1902, (5-6). [4427 ia 4431]. 714

——— Die Lepidopteren der Kunene-Sambesi-Expedition. [In: Kunene-Sambesi-Expedition, hrsg. v. O. Warburg.] Berlin, 1903, (513-559). [4427 fe 4431]. 715

**Wheeler, G.** The butterflies of Switzerland and the Alps of Central Europe. London, 1903, (vi+162). 8vo. Review by Steck, Mt. Schweiz. ent. Ges. **11**, (58). Also Entomologist **36**, (327) and Ent. Rec. **15**, (345-347). [4427 di]. 716

**Wilbrand.** Ein neuer Feind der Eichenkulturen. [*Pseudophia lunaris*.] Allg. Forstztg., Frankfurt a. M., **79**, 1903, (11-13). [4419 4431]. 717

**Wileman, A. E.** On a new variety of *Papilio mikado*, Lœch. Entomologist, London, **36**, 1903, (330). [4431] 718

**Willis, J. C. and Burkill, J. H.** Notes on the anthophilous insect fauna of the Clova mountains. Ann. Scot. Nat. Hist., Edinburgh, **1903**, (29-37, 99-102). [2419 4419 4427 de 4627 de 4631]. 719

**Winn, A. F.** A hermaphrodite *Lycæna*. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (78). [4411 4431]. 720

**Witchell, C. A.** Some instances of intelligence in animals. Gloucester, Proc. Cotteswold Nat. F. Cl., **14**, 1903, (119-125). [0219 4419]. 721

**Woodworth, C. W.** The California peach-tree borer [*Sanninoidea opalescens*]. Agric. Exp. Sta., California, Berkeley, Bull., No. **143**, 1902, (15, with 7 figs.). 23 cm.; [review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., **14**, 1903, (468-469). [4419 4431]. 722

**Wormsacher, Henry.** Records of Lepidoptera in New Jersey. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (201-203). [4427 gg]. 723

**Wünscher.** Die Aufzucht einiger hervorragender Schwärmer aus dem Ei. Ent. Jahrb., Leipzig, **12**, 1903, (118-127). [4403]. 724

**Wytman, P.** Fascicule 4. Lepidoptera. Rhopalocera fam. *Papilionidae*, subfam. *Leptocircinae*. In: Genera insectorum. Bruxelles, 1902, (3, av. 1 pl.). fr. 2.50. [4431]. 725

**Young, L. C. H.** The classification of the Lepidoptera Papilionina. Bombay, J. Nat. Hist. Soc., **15**, 1903, (294-311). [4431]. 726

**Zander, Enoch.** Beiträge zur Morphologie der männlichen Geschlechtsanhänge der Lepidopteren. Zs. wiss. Zool., Leipzig, **74**, 1903, (557-615, mit 1 Taf.). [4407 4415]. 727

**Zdobnický, W.** Das Ei und die ersten Raupenstadien von *Thaispolyzema*. Soc. Entomol., Zürich, **18**, 1903, (36). [4419 4431]. 728

**Zehntner, [ed.].** . . . Neue Futterpflanze der Cacaomotte. (Holländisch) Salatiga, Bull. Cacao, **4**, 1902, (53-56). [4419 4431]. 729

— Bericht über Mottenbekämpfung. (Holländisch) Salatiga, Bull. Cacao, **5**, 1903, (1-53, mit 1 Taf.). [4403 4431]. 730

## 4403 COMPREHENSIVE AND GENERAL WORKS.

### GENERAL.

**Barrett, C. G.** The Lepidoptera of the British Islands: Pts. 95-106. Being vol. IX, (1-454 pls. 377-424) [carrying the work to the end of the *Pyralidae*.]

**Bloomfield, E. N.** Suffolk Lepidoptera in 1902. Ent. Mag., London, **39**, 1903, (88-89).

**Bray, E.** Lépidoptères capturés aux environs de Virton. Bruxelles, Ann. Soc. ent. Belgique, **46**, 1902, (143-146).

**Browne, C. S.** A list of the Lepidoptera of the island of Capri, with a few notes. Entomologist, London, **36**, 1903, (254-256, 284-286, 307-309).

**Crombrugghe de Picquendaels, de.** Note sur quelques lépidoptères de la faune belge et sur leurs larves. Namur, Rev. Soc. ent., **1903**, (52-53).

**Dyar, Harrison G.** Some recent work in North American Lepidoptera. [Annual address of President.] Washington, D.C., Proc. Ent. Soc., **5**, 1903, (167-173).

**Gillmer, M.** Eine autorisierte deutsche 1. Ausgabe von Tutt's British Lepidoptera. D. ent. Zs. Iris, Berlin, **15**, (1902), 1903, (330-334).

**Grete, Radcliffe A.** Nachtrag zu dem Aufsatz: „Geometridengattungen-Namen“, Ins.-Börse XIX Jg. 1902. Insektenbörse, Leipzig, **20**, 1903, (85).

**Holland, William J[acob].** The moth book; a popular guide to a knowledge of the moths of North America. New York (Doubleday Page & Co.), 1903, (XXIV + 479, with illustr., 48 pls.). 26.5 cm.

**Hübner, J. et Geyer.** Lépidoptères exotiques (1806-1837) Nouvelle édition revue, corrigée et augmentée, publiée par W. F. Kirby et P. Wytman, Livraisons 48-54. Bruxelles (P. Wytman), 1901-1903, (17-172, pls. 381-437). La livraison 10 fr.

**Hulme, F. E.** Butterflies and moths of the country side. The Woburn Library. London, 1903, (XX + 300, 35 pls.).

**Janet, A.** Les papillons. Caus. sci., Paris, **1**, 1902, (309-350, av. 1 pl. et 10 fig.).

**Kirby, William Forsell.** The butterflies and moths of Europe. London, Paris, New York and Melbourne (Cassell & Co. Ltd.), 1903, (lxxii + 432, with illustr., pl.). 27.5 cm.

**Lambillon, L. J.** Catalogue des lépidoptères de Belgique, donnant les noms de tous les papillons pris en Belgique jusqu'à ce jour avec les variétés, leurs synonymes, les époques d'apparition, les localités, les époques des chenilles, leur nourriture, etc. et une liste de papillons paléarctiques après chaque groupe indigène. Deuxième édition considérablement augmentée. Fasc. V. Namur (V. Delvaux), 1903, (65-80). 8vo. Le Fasc. fr. 0.50.

——— Histoire naturelle et moeurs de tous les papillons de Belgique. Description complète de chaque espèce; insecte parfait, oeuf, chenille, chrysalide, plantes nourricières, époque d'éclosion, localités, distribution géographique, etc. etc. Ouvrage précédé de renseignements anatomiques et biologiques et d'une liste de papillons fossiles. Vol. 1. Namur (V. Delvaux), 1902, (cxxxiv + 329, av. figs.). 6 fr.

**Longstaff, G. B.** Further notes on Lepidoptera observed at Mortehoe, North Devon. Ent. Mag., London, **39**, 1903, (194-197).

**Renton, W.** A list of the Lepidoptera of Roxburghshire. Entomologist, London, **36**, 1903, (130-135).

**Serebriankov, A. V.** Ueber den grossen Kiefernspinner (*Gastropacha pini* Ochsh.). (Russ.) St. Petersburg, Izv. Lésn. Inst., **7**, 1901, (29-102, mit 1 Taf.).

**Turner, A. Jefferis.** New Australian Lepidoptera, with synonymic and other notes. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (1-26).

**Tutt, J. W.** A Natural History of the British Lepidoptera. Vol. III. London and Berlin: July, 1902. (XI + 558); [review], Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (130-131).

#### MUSEUMS.

**Hampson, George F.** List of types of *Catocala* in the British Museum. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (287).

#### COLLECTIONS AND TECHNIQUE.

**Banks.** [Sugar trap for Lepidoptera.] Ent. Mag., London, **39**, 1903, (171).

**Barrett, O. W.** Cheap tropical American butterflies [due to abundance]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (238-240).

**Denton, William D.** Tropical butterflies. [Scarcity in South America.] *I. c.* (316-317).

**Dod, F. H. Wolley.** Pests and grease. [Lepidoptera collections.] *I. c.* (50-53).

**Dollman.** Breeding cage for pupae. Ent. Rec., London, **15**, 1903, (7, with pl.).

**Grunsch, A.** Das Aufsuchen der Sassen-Raupen. Ent. Zs., Guben, **16**, (1902-03), 1902, (37-38).

**Hoffmann, C.** Nochmals die Zucht von *Pteretes (Pericallia) matronula*. *I. c.* (30-31).

**Jullien, John.** Neue Apparate zur Aufzucht von Raupen. Insektenbörse, Leipzig, **20**, 1903, (300-301).

**Kiefer, Hans.** Fangergebnisse bei elektrischem Lichte. *I. c.* (163-164).

**Longstaff.** [Sugar trap for Lepidoptera.] Ent. Mag., London, **39**, 1903, (124).

**Smith, E. J.** Lantern trapping [of moths]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (207-209).

——— Pests and grease. [Criticism of paper by F. W. Dod.] *I. c.* (244-246).

**South, R.** Catalogue of the collection of palaearctic butterflies formed by the late John Henry Leech and presented to the Trustees of the British Museum by his mother, Mrs. Eliza Leech. London, 1902, (VI + 228, 2 pls.); [review], Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (526).

**Tiedeman, von.** Die Zucht von *Arctia flava* in zwei Generationen. Ent. Zs., Guben, **16**, (1902-03), 1902, (9-10, 25-26, 29-30).

**Wünscher.** Die Aufzucht einiger hervorragender Schwärmer aus dem Ei. Ent. Jahrb., Leipzig, **12**, 1903, (118-127).

## ECONOMICS.

**Berlese, Antonio.** Contro la *Cochylis*. Bollettino di Entomologia agraria, Padova, 9, 1902, (82-86, con. fig.).

**Dammer, Udo.** Zur Seidenbaufrage. Tropenpflanzer, Berlin, 7, 1903, (72-79).

**Guerlco (Del), Giacomo.** Mezzi chimici di lotta contro la cavolaia. Bollettino di Entomologia agraria, Padova, 9, 1902, (63-65).

**Lenert, A.** Erfahrungen in der Bekämpfung des Heu- und Sauerwurms. Trier (J. Lintz), 1903, (36, mit 1 Taf.). 22 cm. 0,80 M.

**Mährlen.** Die Bekämpfung des Springwurmwicklers. Mitt. Weinbau, Geisenheim, 15, 1903, (50-54, 72-76).

**Seufferheld, C.** Die Bekämpfung des Heu- und Sauerwurms in den Weinbergen der Lehranstalt im Jahre 1902, l.e. (65-69).

**Trost, C.** Erfahrungszahlen zum Gebrauche bei der Bekämpfung des Kiefernspinners (*Gastropacha pini*). Tharander forstl. Jahrb., 53, 1903, (92-119).

**Weed, C[arence] M[oores].** Remedies for the cankerworms. Agric. Exp. Sta., New Hampshire, Durham, Bull., No. 85, 1901, (69-76, with 5 figs.); [review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., 13, 1902, (863).

**Zehntner, L[eo].** Mottenbekämpfung auf der Pflanzung Banaran. (Holländisch) Salatiga, Bull. Cacao, 5, 1903, (1-53, 1 Taf.).

## 4407 STRUCTURE.

## GENERAL.

**Metelnikoff, S. J.** Beiträge zur Kenntnis der Anatomie der Raupe von *Galleria melonella*. (Vorläuf. Mitt.) Zool. Anz., Leipzig, 26, 1903, (619-623).

## COMPARATIVE ANATOMY.

**Hirschler, Jan.** Recherches sur l'anatomie comparée de la corde de Leydig chez les lépidoptères. (Polish) Kosmos, Lwów, 28, 1903, (137-153, av. 1 pl.).

**Stitz, H.** Zum Genitalapparat der Lepidopteren. Zool. Anz., Leipzig, 27, 1903, (135-137).

**Zander, Enoch.** Beiträge zur Morphologie der männlichen Geschlechtsanhänge der Lepidopteren. Zs. wiss. Zool., Leipzig, 74, 1903, (557-615, mit 1 Taf.).

## NERVOUS SYSTEM AND ORGANS OF SENSE.

**Quall, A.** On the antennae of *Hepialidae*. London, Trans. Ent. Soc., 1903, (490-507, pl. XIX).

**Schenk, Otto.** Die antennalen Hautsinnesorgane einiger Lepidopteren und Hymenopteren mit besonderer Berücksichtigung der sexuellen Unterschiede. Zool. Jahrb., Jena, Abt. f. Anat., 17, 1903, (573-618, mit 2 Taf.).

## SPECIAL GLANDS.

**Bordas, L.** Les glandes mandibulaires des larves de lépidoptères. Paris, C.-R. Acad. sci., 136, 1903, (1273-1275).

——— Les glandes salivaires de la nymphe de *Sphinx convolvuli* L. Paris, C.-R. soc. biol., 55, 1903, (141-143).

## REPRODUCTIVE ORGANS.

**Pierce, F. N.** Specific differences in *Lithosidae*, as determined by structure of Genitalia. Entomologist, London, 36, 1903, (81-86).

**Stichel, H.** Kritische Bemerkungen über die Artberechtigung der Schmetterlinge. II. D. ent. Zs. Iris, Berlin, 15, 1902, (50-95, mit 2 Taf.).

**Stitz, H.** Zum Genitalapparat der Lepidopteren. Zool. Anz., Leipzig, 27, 1903, (135-137).

## SPECIAL EXTERNAL CHARACTERS.

**Chapman.** [Homeochromatism in European butterflies.] London, Proc. Ent. Soc., 1903, (42-44).

**Croft.** [Colour of butterflies' wings: diffraction of pigment.] Nature, London, 65, 1903, (391).

**Levrat, D. et Conte, A.** Sur l'origine de la coloration naturelle des soies de lépidoptères. *Naturaliste, Paris*, **24**, 1902, (260-261).

**Linden, M[aria] Gräfin von.** Die Farben der Schmetterlinge und ihre Ursachen. Halle, Leopoldina, **38**, 1902, (124-133).

#### 4411 PHYSIOLOGY.

##### GENERAL.

**Smith, G.** The temperature of insects. *Zoologist, London*, (Ser. 4), **6**, 1902, (287-293).

##### FUNCTION OF SPECIAL STRUCTURES.

**Dewitz, J.** Ueber die Herkunft des Farbstoffes und des Materials der Lepidoterenkons. *Zool. Anz., Leipzig*, **27**, 1903, (161-168).

##### HERMAPHRODITISM.

**Ford.** Gynandrous *Hesperia actaeon*. *Entomologist, London*, **36**, 1903, (242).

**Heckel.** Halbierter Zwitter *Platysamia cecropia*. *Ent. Zs., Guben*, **16**, (1902-1903), 1902, (31).

**Jachontov, A. A.** Un spécimen hermaphrodite de *Smerinthus populi* L. (Russ.) *Rev. Russ. Ent., Jaroslavl*, **3**, 1903, (217-218).

**Kabis.** *Argynnis paphia* L. Zwitter. *Ent. Zs., Guben*, **16**, (1902-1903), 1902, (42).

**Schultz, Oskar.** Beschreibung einiger gynandromorphen Exemplare aus der Familie der Pieriden und Nymphaliden. *Berliner ent. Zs.*, **48**, 1903, (270-273).

**Stichel, [H.].** [Zwitter v. *Smerinthus*.] *l.c.* (18).

**Winn, A. F.** A hermaphrodite *Lycaena*. [*L. pseudargiolus* f. *neglecta*.] Philadelphia, Pa., *Ent. News Acad. Nat. Sci.*, **13**, 1902, (78).

##### ENVIRONMENTAL EFFECTS.

**Ball, Fr.** Notes sur l'effet de la température sur les chrysalides. Bruxelles, *Ann. Soc. ent. Belgique*, **45**, 1901, (385-388).

**Fischer, E.** Lepidopterologische Experimentalforschungen. [III.] *Allg. Zs. Ent., Neudamm*, **8**, 1903, (221-228, 269-284, 316-326, 356-368). [4423].

**Pictet, Arnold.** L'influence des changements de nourriture sur les chenilles et sur la formation du sexe de leurs papillons. *Arch. Sci. Phys., Genève*, (sér. 4), **15**, 1903, (91-101).

——— L'influence des changements de nourriture des chenilles sur le développement de leurs papillons. Aarau, Verh. Schweiz. Natf. Ges., **85**, 1902, (78); *Arch. Sci. Phys., Genève*, (sér. 4), **14**, 1902, (537-540).

——— Variations des papillons provenant des changements d'alimentation de leurs chenilles et de l'humidité. Aarau, Verh. Schweiz. Natf. Ges., **86**, 1903, (45-46); *Arch. Sci. Phys., Genève*, (Ser. 4), **16**, 1903, (585-588).

**Poulton, E. B.** Experiments in 1893, 1894, and 1896 upon the colour relation between Lepidopterous larvae and their surroundings, and especially the effect of lichen covered bark upon *Odontopera bidentata*, *Gastropacha quercifolia*, etc. London, *Trans. Ent. Soc.*, **1903**, (311-374, pls. XVI-XVIII).

**Schröder, Chr.** Kritik der von Herrn Dr. E. Fischer (Zürich) aus seinen „Lepidopterologischen Experimentalforschungen“ gezogenen Schlüsse auf Grund einer neuen Erklärung des Wesens derselben. *Allg. Zs. Ent., Neudamm*, **8**, 1903, (437-447).

##### REGENERATION.

**Hirschler, Jan.** Studien über Regenerationsvorgänge bei Lepidopteren-Puppen. *Anat. Anz., Jena*, **23**, 1903, (612-627).

##### CHEMICAL PHYSIOLOGY.

**Bellard, H.** Contribution à l'étude de la formation et de la nature de la matière colorante des ailes de lépidoptères (d'après les travaux récents et spécialement ceux de la comtesse de Linden). Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (141-146, 161-163).

**Farkas, Kálmán.** Untersuchungen über den Energie- und Stoffumsatz bei der Entwicklung von Seidenraupen. (Ungarisch) *Math. Term. Ért., Budapest*, **21**, 1903, (59-94).



**Linden, M[aria] Gräfin von.** Das rote Pigment der Vanessen, seine Entstehung und seine Bedeutung für den Stoffwechsel. Verh. D. zool. Ges., Leipzig, **13**, 1903, (53-65, mit 1 Taf.).

———. Die Farben der Schmetterlinge und ihre Ursachen. Halle, Leopoldina, **38**, 1902, (124-133).

———. Neue Untersuchungen über die Farben der Schmetterlinge. *l.c.* **39**, 1903, (110-112, 116-120).

**Maignon, F.** La production du glucose, sous l'influence de la vie asphyxique, par les tissus du *Bombyx mori*, aux diverses phases de son évolution. Paris, C.-R. Acad. sci., **137**, 1903, (93-95).

#### EXPERIMENTAL PHYSIOLOGY.

Some experiments with a chrysalis. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (286-287). [0211].

#### 4415 DEVELOPMENT.

##### GENERAL.

Les plantes de France, leurs papillons et leurs chenilles (suite). Naturaliste, Paris, (sér. 2), **24**, 1902, (95). [4119 4431].

**Battley, A. M.** Notes on the life-history of *Aporia crataegi*. Entomologist, London, **36**, 1903, (249-251).

**Brascassat, M.** Observations lépidoptérologiques. *Epinephele janira* L. *Rhodocera cleopatra* L. — *Chelonia pudica* Esp. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (64).

**Chrétien, P.** Histoire naturelle de l'*Eupithecia liquorata* Mill. Naturaliste, Paris, (sér. 2), **24**, 1902, (239-241).

**Frohawke, F. W.** Life-history of *Argynnis lathonia*. Entomologist, London, **36**, 1903, (300-304).

**Letacq, A. I.** Observations sur l'*Acherontia atropos*. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (150-151).

**Pabst.** Die *Sphingidae* B., *Zygaenidae* B. und *Syntomidae* H.S. der Umgegend von Chemnitz und ihre Entwicklungsgeschichte. Ent. Jahrb., Leipzig, **12**, 1903, (144-159).

**Pickett, C. P.** Notes on breeding *Angeronia prunaria*. Ent. Rec., London, **15**, 1903, (144-149).

**Quail, A.** On *Charagia tirescens* Dbld (*Hepalidae*). Wellington, Trans. N. Zeal. Inst., **35**, 1903, (249-255).

**Rocquigny-Adanson, G. de.** *Papilio machaon*. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (205).

**Russell, G. M.** Notes on *Geometria vernaria*. Entomologist, London, **36**, 1903, (227-228).

##### OOGENESIS AND SPERMATOGENESIS.

**Grünberg, Karl.** Untersuchungen über die Keim- und Nährzellen in den Hoden und Ovarien der Lepidopteren. Ein Beitrag zur Kenntnis der Entwicklung und Ausbildung der Keimdrüsen bei den Insekten. Zs. wiss. Zool., Leipzig, **74**, 1903, (327-395 mit 3 Taf.).

##### METAMORPHOSIS AND LARVAL FORMS.

**Bordas, L.** Les glandes mandibulaires des larves de lépidoptères. Paris, C.-R. Acad. sci., **136**, 1903, (1273-1275).

———. Les glandes salivaires de la nymphe de *Sphinx concolor* L. Paris, C.-R. soc. biol., **55**, 1903, (141-143).

**Galand, M[arius].** Einige Mitteilungen über [Raupe und Puppe von] *Bombyx populi* L. (Holländisch) 's Gravenhage, Tijdschr. Ent., **46**, [1903], (65-70).

**Dewitz, J.** Ueber die Herkunft des Farbstoffes und des Materials der Lepidopterenkokons. Zool. Anz., Leipzig, **27**, 1903, (161-168).

**Dollman, J. C.** Notes on the eggs, larva, cocoon and female of *Orgyia splendida*. Ent. Rec., London, **15**, 1903, (283-284).

**Douglas, J.** Some account of the larvae of *Pocillocompa populi*. Entomologist, London, **36**, 1903, (13-14).

**Fawcett, J. Malcolm.** Notes on the transformations of some South African Lepidoptera (continued from vol. XV). London, Trans. Zool. Soc., **17**, 1903, (165-190, pls. VI-VIII).

**Frohawke, F. W.** Life history of *Vanessa antiopa*. Entomologist, London, **33**, 1903, (2-5).

———. The earlier stages of *Lycaina arion*. *l.c.* (57-60).

**Glard, A.** Evolution d'*Acherontia atropos*. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (124-127).

**Gruss, Friedrich, jun.** Die Häutungen der Raupen von *Caligula japonica* Butler. Insektenbörse, Leipzig, **20**, 1903, (388-389).

**Hirschler, Jan.** Studien über Regenerationsvorgänge bei Lepidopteren-Puppen. Anat. Anz., Jena, **23**, 1903, (612-627).

**Linden, M[aria] Gräfin von.** Das rote Pigment der Vanessen, seine Entstehung und seine Bedeutung für den Stoffwechsel. Verb. D. zool. Ges., Leipzig, **13**, 1903, (53-65, mit 1 Taf.).

**Loiselle, A.** A propos de l'évolution d'*Acherontia atropos*. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (127).

**Pomerancev, D. V.** Beitrag zur Kenntnis der auf der Fichte (*Picea excelsa*) lebenden schädlichen und nützlichen Insecten. (Russ.) St. Petersburg, Izv. Leñ. Inst., **8**, 1902, (3-25, mit 1 Taf.).

**Rondou, P.** Note sur les chenilles de *Daphnis nerii*, L. trouvées dans la Gironde. Bordeaux, Actes soc. linn., **58**, 1903, (Proc.-verb., CCLXX).

**Stépi, P.** Evolution d'*Acherontia atropos*. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (104-105).

#### POSTEMBRYONIC ONTOGENY.

**Kolbe, K.** Ueber vorschnelle Entwicklung von Puppen- und Imago-Organen bei Raupen von Lepidopteren (*Dendrolimus pini* L.). Berlin, SitzBer. Ges. natf. Freunde, **1902**, (158-166).

**Zander, Enoch.** Beiträge zur Morphologie der männlichen Geschlechtsanhänge der Lepidopteren. Zs. wiss. Zool., Leipzig, **74**, 1903, (557-615, mit 1 Taf.).

#### CYCLES OF GENERATIONS.

**Simpson, C. B.** Observations upon the life history of the codling moth. [*Carpocapsa pomonella*.] Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., No. **40**, 1903, (63-65).

#### 4419 ETHOLOGY.

##### GENERAL.

*Acherontia atropos*. Questions de M. J. du Doré, par A. G. Feuille jeunes natural., Paris, (sér. 4), **33**, 1902, (34).

Der Apfelwickler (*Carpocapsa pomonana*). Schweiz. Landw. Zeitschr., Aarau, **30**, 1902, (934-935, 1 Fig.). [4431].

Les plantes de France, leurs papillons et leurs chenilles (suite). Naturaliste, Paris, (sér. 2), **24**, 1902, (95). [4415 4431].

**Aimé, A.** La noctuelle du frêne. Nature, Paris, **30**, (2<sup>e</sup> sem.), 1902, (314-315).

**Brown.** *Toxocampa pastinum* des environs de Bordeaux. Bordeaux, Actes soc. linn., **58**, 1903, (Proc.-verb., CLXXXIX).

**Caillon, F.** Chenilles de *Papilio machaon* exhalant une odeur de musc. Feuille jeunes natural., Paris, (sér. 4), **34**, 1903, (38).

**Chapman, T. A.** On *Orgyia aurdilata* Gn. at Bejar. Ent. Rec., London, **15**, 1903, (113-118, pls. IV, V).

**Chrétien, P.** Histoire naturelle de l'*Eupithecia liguriata* Mill. Naturaliste, Paris, (sér. 2), **24**, 1902, (239-241).

**Clarke, W. E.** *Vancasa cardui* and other insects at the Kentish Knock lightship. Ent. Mag., London, **39**, 1903, (289-290).

**Clément, A. L.** La teigne du crin. Nature, Paris, **30**, (2<sup>e</sup> sem.), 1902, (251-252).

**Coulon, L.** La chasse aux papillons dans la région d'Elbeuf. Elbeuf, Bul. soc. sci., nat., **20**, 1901, [1902], (61-76).

——— *Saturnia pyri*. Feuille jeunes natural., Paris, (sér. 4), **35**, 1903, (38).

**Dufour, J.** La Pyrale. Chron. Agric., Lausanne, **15**, 1902, (319-328, av. 4 fig.).

——— Pyrale et gribouri. (*Eumolyc*). l.c. (459-462, 2 fig.).

**Dupont, L.** Les Argynnides de la Normandie. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (80-81).

**Dupuy, G.** Les Argynnidés de la Charente, des Deux-Sèvres, de la Dordogne et de la Gironde. *l.c.* (196-198).

**Fougères, Marquis de.** Différence entre le papillon borer des Antilles (*Diatraea saccharalis* Fbr., *obliteratus* L.) et le papillon borer (*Diatraea strigalis* Snell) de Java, de l'île Maurice et de la Réunion. Paris, Bul. soc. nat. acclim., **50**, 1903, (60-62).

**Foulquier, G.** *Euprepia pudica*. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (51).

**Giard, Alfred.** Les Argynnidés de la France septentrionale. *l.c.* (43-46).

——— *Rhodocera elcopatra* L. A propos de l'observation de M. Brascassat. *l.c.* (84).

——— *Coenonympha hero* L. *l.c.* (203).

**Gillette, C. P.** Life history studies on the codling moth [with discussion]. Washington, D.C., Bull. U.S. Dept. Agric. Div. Ent., (N. Ser.), No. **31**, 1902, (1-23).

**Ichès, Lucien.** Le ver des pommes. Nature, Paris, (1<sup>re</sup> sem.), **31**, 1903, (145-147, av. fig.).

**Jullien, J.** Notes sur la *Catocala puerpera*. Soc. Entomol., Zürich, **17**, 1902, (97-98),

**Klos, Rudolf.** Zur Lebensgeschichte von *Tephroclystia virgaureata* Dbld. Wien, Verh. ZoolBot. Ges., **51**, 1901, (785).

**Letacq, A. L.** Observations sur l'*Acherontia atropos*. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (150-151).

**Marlatt, Charles** [Lester]. The peach-tree borer (*Sannina exitiosa* Say.). Washington, D.C., Cir. U.S. Dept. Agric. Div. Ent., No. **54**, 1903, (6). 23.5 cm.

**Pfingeler, Rudolf.** Zur Naturgeschichte der *Lygris peloponnesiaca* Rbl. Berliner ent. Zs., **48**, 1903, (321-322).

**Rocquigny - Adanson, G. de.** Les Argynnidés du centre de la France. Feuilles jeunes natural., Paris, (sér. 4), **33**, 1903, (119-123).

——— *Lasiocampa quercus*, L. *l.c.* **34**, 1903, (19-20).

**Rodžanko, Vladimir Nikolajevič.** Einige Beobachtungen über *Pammene rediella* Clerck. (Tortricina, Lepidoptera). (Russ.) Moskva, Dnev. Zool. Otd. Imp. Obsč. Hüb. jest., **III**, 5, 1903, (28-41). 35 cm.

**Rondou, P.** Catalogue des lépidoptères des Pyrénées. Bordeaux, Actes soc. linn., (sér. 6), **57**, 1902, (177-355).

**Rothke, Max.** Ueber einige Zucht- und Akklimatisationsversuche mit dem chinesischen Eichenseidenspinner (*Antheraea pernyi* Guér.) im nordwestlichen Deutschland. Ent. Jahrb., Leipzig, **12**, 1903, (160-164).

**Rougemont, F. de.** Les pluies de chenilles. Arch. Sci. Phys., Genève, (sér. 4), **16**, 1903, (735-736).

**Schille, Fr.** Ein Beitrag zur Schmetterlingsbiologie. Soc. Entomol., Zürich, **16**, 1902, (146); **17**, 1903, (186).

**Schlimpf, Gustav.** Schmetterlingsbiologieen aus Süd-Amerika. Naturfreund, Witten, **1**, 1902, (73-76).

**Siépi, P.** Encore *Euprepia pudica*. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (51).

——— Contribution à l'histoire naturelle de *Charaxes jasius*. *l.c.* (56-64, av. 1 pl.).

**Simpson, C. B.** The codling moth [*Carpocapsa pomonella*. With bibliography.] Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., No. **41**, 1903, (105, with map and pl.). 23 cm.

**Swinhoe, C.** Report on the Heterocera. Fascic. Malay. Zool., **1**, (51-109).

**Völker, Ulrich.** Ein Beitrag zur Naturgeschichte von *Valeria oleagina*. Ent. Zs., Guben, **16**, (1902-03), 1902, (38-39).

**Waterhouse, G. A.** Descriptions and notes of Australian *Hesperidae*, chiefly Victoria. Vict. Nat., Melbourne, **20**, 1903, (52-57).

**Werner, Aug.** *Agria tau* L. aber. *melaina* Gross and *Agria tau* L. var. *cupreola* n. Soc. Entomol., Zürich, **17**, 1902, (129-130).

**Willis, J. E. and Burkill, J. H.** Notes on the Anthophilous insect fauna of the Clova mountains. Ann. Scot. Nat. Hist., Edinburgh, **1903**, (29-37, 99-102).

## HABITS.

**Bate, Miss D. M. A.** Notes on the resting attitude of *Zamocra flabellaria*. Entomologist, London, **38**, 1903, (106).

**Chapman, T. A.** On winglessness in winter moths. Ent. Rec., London, **15**, 1903, (43-46).

—— The European *Orgyias*: their specialisation in habits and structure. L.c. (169-171, with pls.).

**Chittenden, Frank H.** The fall army worm [*Saphygma frugiperde*]. With bibliography and the variegated cutworm [*Peridroma saucia*]. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **29**, 1901, (64). 23 cm.

**Gillanders, A. T.** Notes on miscellaneous arboreal insects. [The traces of frass of larvae]. Manchester, Trans. Microsc. Soc., **1902**, (72-80, pl. 1).

**Gillette, C. P.** Number of broods of the codling moth [*Carpocapsa pomonella*] as indicated by published data. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, 1903, (193-190).

**Haberland, T.** Ein Beitrag zur Lebensweise von *Bombyx rubi*. Insektenbörse, Leipzig, **20**, 1903, (115).

**Hornig, Herman.** The feeding habits of the larva of *Anthocharis genutia*. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (252).

**Labonnefon, C. de.** Almanach du chasseur de chenilles. Interméd. bombycult., Paris, **2**, 1902, (336-341, 361-369); **3**, 1903, (6-15).

**Lucas, Ed.** Winterquartier der Apfelbaumgespinnstmotte. Pomol. Monatshefte, Stuttgart, **49**, 1903, (77-78).

**Mally, C. W.** Fruit seriously injured by moths. [Cape Town, South Africa]. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **31**, 1902, (90-93).

**Oudemans, J.** [chaunes] Th[eodorus]. La position de repos chez les lépidoptères. Amsterdam, Verh. K. Akad. Wet., 2e Sect., **10**, 1, [1903], (1-90, av. 11 pls.).

**Pierre, Abbé.** Mœurs de *Grapholitha conterminata*. H. S. (fin). Echange, Lyon, **17**, 1902, (28-29).

**Rivers, J. J.** Discovery of another food plant of *Uranotes (Theckla) melinus*, Hub. Los Angeles, Bull. So. Cal. Acad. Sci., **1**, 1902, (41-42).

**Schreiber, Carl.** Raupen-Kalender. [Nach den Futterpflanzen geordnet für das mitteleuropäische Faunengebiet.] (Forts.) D. ent. Zs. Iris, Berlin, **14**, (1901), [1902], (277-326).

**Simpson, C. B.** Report upon an investigation of the codling moth [*Carpocapsa pomonella*] in Idaho in 1900. Washington, D.C., Bull. U. S. Dept. Agric., Div. Ent., (N. Ser.), No. **30**, 1901, (51-75).

**Slevogt, B.** Die Raupe von *Stauropus fagi*. Soc. Entomol., Zürich, **16**, 1902, (185-186).

**Zdobnicky, W.** Das Ei und die ersten Raupenstadien von *Thais polyxena*. L.c. **18**, 1903, (36).

## PHENOLOGY.

**Gauckler, H.** Einige Bemerkungen zu Schreibers Raupenkalendar. Insektenbörse, Leipzig, **20**, 1903, (180-181).

**Giard, Alfred.** Apparitions tardives d'*Apatura ilia* Schiff et *Limenites sibylla* L. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (50-51).

## HIBERNATION.

**Neureuter, Franz.** Schmetterlinge im Winter. Natur u. Offenb., Münster, **49**, 1903, (110-112).

## OVIPOSITION.

**Fasal, A. H.** Die Eiablage der Tagfalter in der Gefangenschaft. Ent. Jahrb., Leipzig, **12**, 1903, (139-142).

**Gal, Jules.** Sur la ponte de *Bombyx mori*. Paris, C.-R. Acad. sci., **137**, 1903, (932-934).

**Gauckler, H.** Ein Beitrag zur Eiablage der Schmetterlinge. Ent. Jahrb., Leipzig, **12**, 1903, (128-138).

**Gillmer, M.** Die Futterpflanze das Ei und die junge Raupe von *Lycæna alcon* F. Soc. Entomol., Zürich, **17**, 1902, (92-93, 98-99).

—— Das Ei von *Erebia glacialis* Esper. L.c. **18**, 1903, (74).

## SOUND PRODUCTION.

**André, E.** Sur le son émis par les chenilles. Feuille jeunes natural., Paris, (sér. 4), **33**, (224).

**Brabant, D.** Sur le son émis par les chenilles (207).

**Giard, A.** Sons émis par les chenilles. l.c. (222).

**Smits, Alb.** Sur le son émis par les chenilles. l.c. (224).

## INSTINCT AND PSYCHOLOGY.

**Distant, W. L.** Animal sense perceptions. Zoologist, London, (ser. 4), **7**, 1902, (161-178).

**Witchell, C. A.** Instances of intelligence. Gloucester, Proc. Cotteswold Nat. F. Cl., **14**, 1903, (119-125).

## SOCIAL RELATIONS.

**Foulquier, G.** Familiarité observée chez les lépidoptères [Réponse à M. de Rocquigny-Adanson]. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (170).

**Giraudan, H.** Familiarité observée chez les lépidoptères. l.c. (223).

**Guignon.** Familiarité des lépidoptères [Réponse à une question de M. de Rocquigny-Adanson]. l.c. 1903, (171).

**Nodier.** Familiarité observée chez les lépidoptères. l.c. (203-204).

## HABITAT.

**Silfvenius, A[ntti] J[ohannes].** [Über im Wasser lebende Schmetterlinge und auf Land lebende Trichopteren]. (Finnisch) Luonnon Ystävä, Helsingfors, **1903**, 6-8, (125-128).

## GREGARIOUSNESS.

**Smits, Alb.** Colonie de *Boletobia fuliginosa*. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (224).

## SYMBIOSIS.

**Pocock, R. I.** Notes on the commensalism subsisting between a gregarious spider *Stegodyphus* sp., and the moth *Batrachedra stegodyphobius* Wlsm. Ent. Mag., London, **39**, 1903, (167-170).

**Walsingham, Lord.** Description of a new species of *Batrachedra* associated with spiders in S. Africa. l.c. (166-167).

## PARASITISM.

Parasitisme des Triangulins dans les nids de Mellifères. Feuille jeunes natural., Paris, (sér. 4), **33**, 1902, (13-14), [d'après Green, Ern. On some Parasites of *Xylocopa tenuiscapa*. Ent. Mag., London, **1902**, (232-233)]. [4819 4431].

**Chrétien, P.** La *Conchylis austriana*, nouvelle *Conchylis* cécidogène. Naturaliste, Paris, (sér. 2), **24**, 1902, (257-258).

**Dorr, Emile.** Rareté des lépidoptères. Abondance de parasites. Feuille jeunes natural., Paris, (sér. 4), **34**, 1903, (38).

**Lutz, Adolph und Splendore, Alfonso.** Ueber Pebrine und verwandte Mikrosporidien. Ein Beitrag zur Kenntnis der brasilianischen Sporozoen. Erste Mitteilung. Centralbl. Bakt., Jena, Abt. I, **33**, Originale, 1903, (150-157).

**Rudow.** Die Schmarotzer unserer einheimischen Schwärmer (Sphingiden). Insektenbörse, Leipzig, **20**, 1903, (196).

— Schmarotzer der einheimischen Spinner. l.c. (196-197).

**Vassiljev, I. V.** Der Baumweissling (*Aporia crataegi* L.) und dessen Parasiten. (Russ.) Trd. B. entom. Včen. Kom. M. Zeml., St. Petersburg, **III**, No. 8, 1902 (36, mit 16 Fig.).

**Zehntner, I[eo].** . . . Neue Futterpflanze der Cacaomotte. (Holländisch) Salatiga, Bull. Cacao, **4**, 1902, (53-56).

— Bericht über Mottenbekämpfung. (Holländisch) l.c. **5**, 1903, (1-53, mit 1 Taf.).

## ENEMIES.

**Colthrup.** [Birds attacking butterflies]. Entomologist, London, **36**, 1903, (173).

**Curtis.** [Bird destroying butterflies]. l.c. (68).

**Finn.** [Birds capturing butterflies]. Nature, London, **65**, 1903, (415).

**Hamm and others.** [Birds capturing butterflies]. l.c. (366).

**Latter.** [Birds capturing butterflies].  
I.c. (273).

**McKay.** [Birds capturing butterflies].  
I.c. (247, 486).

**Poulton.** [Birds capturing butterflies].  
I.c. (343-465).

**Veley.** [Birds capturing butterflies].  
I.c. (273, 392).

## DEFENSIVE PROCESSES.

**Bachmetjev, P.** Ein neu-entdecktes Schutzmittel bei Schmetterlingspuppen gegen Kälte. Soc. Entomol., Zürich, **16**, 1902, (161-162).

**Dankler, M.** Schutzfärbung der Schmetterlingspuppen. Natur u. Offenb., Münster, **49**, 1903, (698-699).

**Kaye, W. J.** Some considerations concerning mimicry. Ent. Rec., London, **15**, 1903, (177-179).

**Leigh, G. L.** Protective resemblance and other modes of defence adopted by the larvae and pupae of Natal Lepidoptera. London, Proc. Ent. Soc., **1903**, (xxi-xxv).

**Oudemans, J. T.** La position de repos chez les lépidoptères. Amsterdam, Verh. K. Akad. Wet., 2<sup>e</sup> sect., **10**, 1, [1903], (1-30, av. 11 pls.).

**Poulton.** [Mullerian group, Rhopalocera from British Guiana.] London, Proc. Ent. Soc., **1903**, (54-56).

**Rey.** [Zur Mimikry-Theorie.] Perlinier ent. Zs., **48**, 1903, ((5)-(6)).

**Rey, Eugène.** Einiges über Schreck- oder Warnfarben bei Schmetterlingen. Insektenbörse, Leipzig, **20**, 1903, (131-132).

**Shelford, R.** A curious protective device in a Lepidopterous larva. Zoologist, London, (Ser. 4), **7**, 1903, (161-163, pl. 4).

**Thurnall.** *Dianthoecia*, mimicry and concealment. Ent. Mag., London, **39**, 1903, (201).

**Trimen.** [Resemblances, *Planema*, *Pseudacraea*, *Papilio*.] London, Proc. Ent. Soc., **1903**, (38-41).

**Weeks, Archibald C.** Theory as to evolution of secondaries of moths of the genus *Catocala*. New York, N.Y., J. Ent. Soc., **11**, 1903, (221-226).

## UTILITY AND HARMFULNESS.

**Bengtsson, Simon.** Investigations on *Lymantia monacha* and the scene of its ravages in the provinces Södermanland and Östergötland in the year 1900. (Swedish) Entomol. Tidskr., Stockholm, **22**, 1901, (145-157).

**Brecher.** Beobachtungen über den Frass des Kiefernspinners im Herbst 1900 und Vorbeugung. D. Forstztg. Neudamm, **16**, 1901, (617-620).

**Britton, W. E.** The apple-tree tent caterpillar [*Clisiocampa americana*]. Agric. Exp. Sta., Connecticut, New Haven, Bull. No. **139**, 1902, (12, with 3 pls, 3 figs.). 23 cm.; [review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., **14**, 1902, (371-372).

**Chittenden, F. H.** The green clover worm [*Plathypena scabra* Fab.] Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **30**, 1901, (45-50).

**Chrétien, P.** La *Stagmatophora divitella* Cst. n'est pas cécidogène. Paris, Bull. soc. ent., **1902**, (261-264).

**Clarke, W. T.** The potato worm in California (*Gelechia operculella*). Agric. Exp. Sta., California, Berkeley, Bull., No. **135**, 1901, (30, with 10 figs.). 23 cm.; [review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., **13**, 1902, (765-766).

**Faas, H.** La chenille du chou. Chron. Agric., Lausanne, **15**, 1902, (1-10).

— Une invasion de chenilles du chou. Lausanne, Bul. Soc. Sci. Nat., **38**, 1902, (XIX); Arch. Sci. Phys., Genève, (sér. 4), **13**, 1902, (602).

**Houghton, J. T.** Contributions to the life-history of *Gelechia (Recurvaria) nanella* Hb., from an economic point of view. Ent. Mag., London, **39**, 1903, (219-221).

**Lüstner, Gustav.** Kurze Mitteilung über zwei hinsichtlich ihrer Eiablage interessante Obstbaumschädlinge. Geisenheimer Mitt. Obstbau, **18**, 1903, (77-78).

**Nicéville, Lionel de [the late].** Insect pests of forest trees. Calcutta, Ind. Mus. Notes, **5**, 1903, (103-107, with pls.).

— Insect pests of fruit trees. I.c. (117-127, with pls.).

**Nicéville, Lionel de** (*the late*). Insect pests of plants. *l.c.* (129-130, with pls.).

——— Insect pests of vegetables. *l.c.* (131-132, with pls.).

——— Insect pests of cereals and crops. *l.c.* (134-143, with pls.).

——— Insect pests of indigo. *l.c.* (144-161, with pls.).

——— Insect pests of the sugarcane. *l.c.* (169-182, with pls.).

——— Insect pests of cotton. *l.c.* (182-184, with pls.).

——— Insect pests of opium. *l.c.* (184-185, with pls.).

——— Insect pests of tea. *l.c.* (185-189, with pls.).

**Pack-Beresford.** Scotch pine injured by *Retinia buoliana*. *Irish Nat.*, Dublin, **12**, 1903, (299).

**Pomerancev, D. V.** Beitrag zur Kenntniss der auf der Fichte (*Picea excelsa*) lebenden schädlichen und nützlichen Insecten. (Russ.) *St. Petersburg, Izv. Leśn. Inst.*, **8**, 1902, (3-25 mit 1 Taf.).

**Ritzema Bos, J[an].** Ueber das schädliche Auftreten von *Retinia turionana* nebst allgemeinen Bemerkungen über die Lebensweise der Retinien überhaupt. *Centralbl. Bakt.*, Jena, Abt. 2, **10**, 1903, (241-250).

**Sanderson, F[ra]z[er].** Three orchard pests [*Steganopteryx pyricolana*, *Euzophera semifuneralis* and *Cicada septendecim*]. *Agric. Exp. Sta.*, Delaware, Newark, Bull., No. **53**, 1901, (19, with 11 figs.). 23 cm.; [review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., **13**, 1902, (872-873).

——— Some destructive caterpillars [*Hyphantria cunea*; *Hemerocampa leucostigma* and *Clisiocampa americana*]. *Agric. Exp. Sta.*, Delaware, Newark, Bull., No. **56**, 1902, (28, with 14 figs.). 23 cm.; [review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., **14**, 1902, (372).

——— Report of the Entomologist. [Including notes on *Aphis* and *Euzophera semifuneralis*]. *Agric. Exp. Sta.*, Delaware, Newark, Rep., **1901**, (127-199, with 6 pls., 16 figs.); [review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., **14**, 1902, (268-269).

**Sasaki, Chūjirō.** Notes on the leaf-miners of the fruit trees. (Japanese) *Dobuts. Z.*, Tokyo, **15**, 1903, (381-383).

**Serebriannikov, A. V.** Ueber den grossen Kiefernspinner (*Gastropacha pini*). (Russ.) *St. Petersburg, Izv. Leśn. Inst.*, **7**, 1901, (29-102, mit 1 Taf.).

**Slingerland, M[ark] V[ernon].** Three unusual strawberry pests. [*Cacoecia obsoletana*, *Harpalus caliginosus* and *H. pennsylvanica*]. *Agric. Exp. Sta.*, New York (Cornell station), Ithaca, Bull., No. **190**, 1901, (143-164, with 15 figs.); [review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., **13**, 1901, (371-372).

**Smith, J. B.** Two strawberry pests [*Phocopterus comptana* and *Aphis forbesi*]. *Agric. Exp. Sta.*, New Jersey, New Brunswick, Bull., No. **149**, 1901, (17, with 2 pls.). 23 cm.; [review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., **13**, 1901, (161).

**Stebbing, E. P.** Insect pests of the sugarcane in India. *Calcutta, Ind. Mus. Notes*, **5**, 1903, (64-91).

**Tschetwerlikoff, S.** *Dendrolimus laricis* Tschetw. nov. sp. Ein neuer und schädlicher Spinner der paläarktischen Region. *Soc. Entomol.*, Zürich, **18**, 1903, (89-90).

**Voronov, A.** *Grapholitha nigricana* H. S. in den Fichtenwäldern des Gouv. Kélce während der Jahre 1890-1895. (Russ.) *St. Petersburg, Hor. Soc. Ent. Ross.*, **36**, 1903, (CLII-CLVI).

**Wilbrand.** Ein neuer Feind der Eichenkulturen. [*Pseudophia lunaris*]. *Allg. Forstztg.*, Frankfurt a. M., **79**, 1903, (11-13).

**Woodworth, C. W.** The California peach-tree borer [*Sanninoidea opaleacens*]. *Agric. Exp. Sta.*, California, Berkeley, Bull., No. **143**, 1902, (15, with 7 figs.). 23 cm.; [review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., **14**, 1903, (468-469).

#### BREEDING.

**Césard, Léonce.** Educations de Bombyciens séricigènes en 1902. *Paris, Bul. soc. nat. acclim.*, **49**, 1902, (382-386).

**Prinz, Johann.** Die Zucht und die ersten Stände von *Sesia annellata* Z. Wien, JahrBer. Entom. Ver., **11**, (1900), 1901, (109–112).

#### 4423 VARIATION AND AETIOLOGY.

**Brascassat, M.** Observations lépidoptérologiques. *Epinephela janira* L. *Rhodocera cleopatra* L.—*Chelonia pudica* Esp. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (64).

**Chapman.** Variation of *Chrysophanus phlaeas*. London, Proc. Ent. Soc., **1903**, (62).

**Dziurysynski, Clemens.** Neue Zygaenen-Aberrationen, nebst kleinen Bemerkungen über bereits bekannte Aberrationen. D. ent. Zs. Iris, Berlin, **15**, (1902), 1903, (335–338).

**Elwes, H. J.** On a collection of Lepidoptera from Arctic America. London, Trans. Ent. Soc., **1903**, (239–243, pl. IX).

**Fischer, E.** Lepidopterologische Experimental-Forschungen. [III.] Allg. Zs. Ent., Neudamm, **8**, 1903, (221–228, 269–284, 316–326, 356–368).

**Fischer, E[nn]e.** Drei neue Formen aus der Gruppe der Vanessiden. Soc. Entomol., Zürich, **17**, 1902, (49–50).

**Foulquier, G.** *Leucophasia lathyri* III. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (151).

**Freke.** Variation in Britain of *Melitaea aurinia*. Entomologist, London, **36**, 1903, (86).

**Frings, Carl.** Unregelmässige Entwicklung bei *Bombyx quercus*. Soc. Entomol., Zürich, **17**, 1903, (185–186).

**Fruhstorfer, H.** Eine neue *Ornithoptera*-Form. L. c. **18**, 1903, (49).

——— Eine neue *Ornithoptera*-form aus Sumatra. L. c. (57).

**Fuchs, A.** Drei neue Lepidopteren-Formen der europäischen Fauna (3 nn. abb. in *Orthosia, Sterrha* 2). L. c. (3).

**Hormusaki, C.** von. Ueber einige merkwürdige *Zygaena*-Formen aus der Bukowina. L. c. **17**, 1902, (137–139).

(N 2–9053)

**Kossanogoff, J.** Ueber optische Resonanz. 2. vorläufige Mitteilung. Optische Resonanz als Ursache der Färbung der Schmetterlingsflügel. Physik. Zs., Leipzig, **4**, 1903, (258–261); 3. vorl. Mitt. Antwort an die Hrn R. W. Wood und A. Garbasso. Einige Resultate der quantitativen Untersuchungen. L. c. (518–520).

**Merrick, H. W.** Variation in *Haploa*. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (1–2, with pl.).

**Plotet, Arnold.** Variations des papillons provenant des changements d'alimentation de leurs chenilles et de l'humidité. Aarau, Verh. Schweiz. Natf. Ges., **86**, 1903, (45–46); Arch. Sci. Phys., Genève, (sér. 4), **16**, 1903, (585–588).

**Prout, L. B.** On two variable broods of *Trophaea comes*, Hb. (*Melanozonias*, Gmel.) from Forres. Ent. Rec., London, **15**, 1903, (217–222).

**Rocquigny-Adanson, G. de.** *Epinephela janira* I. Feuille jeunes natural., Paris, (sér. 4), **33**, 1902, (33); 1903, (84–85, 205).

——— *Epinephela hyperanthus*. L. L. c. 1903, (108).

——— *Vanessa antiopa*. L. c. (151).

——— *Coenonympha hero* L. L. c. (169).

**Schröder, Chr.** Kritik der von Herrn Dr. E. Fischer (Zürich) aus seinen „Lepidopterologischen Experimental-forschungen“ gezogenen Schlüsse auf Grund einer neuen Erklärung des Wesens derselben. Allg. Zs. Ent., Neudamm, **8**, 1903, (437–447).

**Schultz, Oscar.** Einige interessante Abnormitäten und Aberrationen aus der Lepidopteren-Sammlung des Herrn A. Pilz (Heinrichau). Berliner ent. Zs., **48**, 1903, (297–300).

——— Ueber eine bemerkenswerte Form von *Apatura iris*. L. Soc. Entomol., Zürich, **17**, 1903, (161).

#### SUBSTANTIVE VARIATION.

**Andrews.** Dark variety of *Catocala nupta*. Ent. Mag., London, **39**, 1903, (86).



**Bachmetjew**, P. Ueber die Anzahl der Augen auf der Unterseite der Hinterflügel von *Epinephole jurtina* L. Allg. Zs. Ent., Neudamm, **8**, 1903, (253–256).

——— Zur Variabilität der Flügellänge von *Aporia crataegi* L. in Sophia (Bulgarien). l.c. (389–395, 470–494).

——— Die Flügellänge von *Erebia euryale* Esp. 1903 in Sofia. Insektenbörse, Leipzig, **20**, 1903, (364–365).

**Barrett**. *Tephrosia consonaria*, melanism. Ent. Mag., London, **39**, 1903, (200).

**Courvoisier**, L. G. Ueber Aberrationen der Lycaeniden. Schaffhausen, Mitt. Schweiz. Entomol. Ges., **11**, 1903, (18–25, av. 1 pl.).

**Frings**, Carl. Ein Schlusswort zur Verfolgung der Schmetterlinge durch Vögel (Ueber die Mimikry-Theorie). Soc. Entomol., Zürich, **17**, 1902, (99–100, 105–108).

**Gauckler**, H. Etwas über Grössenbestimmung der Schmetterlinge. Insektenbörse, Leipzig, **20**, 1903, (292–293).

**Geest**, W. Neue Schmetterlings-Aberrationen. Allg. Zs. Ent., Neudamm, **8**, 1903, (308–313).

**Giard**, A. L'albinisme partiel des Satyrides. [à propos de la Note de M. G. de Rocquigny-Adanson]. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (103–104).

**Haliday**. [Dark varieties of Heterocera]. Halifax Nat., **8**, 1903, (81–83).

**Kellogg**, [Vernon] L[ym]an and **Bell**, B. G. Variations induced in larval, pupal and imaginal stages of *Bombyx mori* by controlled varying food supply. Science, New York, N.Y., (N. Ser.), **18**, 1903, (741–748).

**Mittels**, Heinrich Ritter v[on]. Ueber einige Rhopaloceren - Aberrationen. Wien, JahrBer. Entom. Ver., **11**, (1900), 1901, (113–115, mit 1 Taf.).

**Perrier**, Edmond. Rapport pour le prix Da Gama Machado (*Comtesse Maria von Linden*): "La généalogie des Papillons est inscrite sur leurs ailes." Paris, C. R. Acad. sci., **137**, 1903, (1128–1130).

**Pickett**. Varieties of *Dilina tiliae*. London, Proc. Ent. Soc., **1903**, (14).

**Poulton**. Variation of *Precis actia*. l.c. (32).

**Prout**. Varieties of *Angerona prunaria*. Ent. Rec., London, **15**, 1903, (144–150).

**Rowland-Brown**, H. An aberration of *Melitaea didyma*. Entomologist, London, **36**, 1903, (153–154, with fig.).

**Schröder**, Chr. Die Zeichnungs-Variabilität von *Abraxas grossulariata* L. gleichzeitig ein Beitrag zur Descendenz-Theorie. Allg. Zs. Ent., Neudamm, **8**, 1903, (105–119, 145–157, 177–194, 228–234).

**Schultz**, Oskar. Melanismus bei *Acronycta rumicis* L. Soc. Entomol., Zürich, **16**, 1902, (170).

——— Ueber einige aberrative Formen von *Agria tau* L. darunter ab. *caecata* Schultz. l.c. **17**, 1903, (178–179).

——— Varietäten und Aberrationen von *Lycaena eumedon* Esp. Uebersicht über die Variabilität dieser Species. Berliner ent. Zs., **48**, 1903, (263–269).

——— . . . *Chrysophanus* HB. Nyt Mag. Naturv., Kristiania, **41**, 1903, (23–26).

**Stépi**, P. Satyrides atteints d'albinisme. (Liste supplémentaire). Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (134).

**Slevogt**, B. Ueber, namentlich bei Noctuen, zunehmenden Melanismus. Soc. Entomol., Zürich, **17**, 1902, (43).

**Strand**, Embr. Neue Norwegische Schmetterlingsformen. Arch. Math. Naturv., Kristiania, **25**, 1903, (24).

#### MERISTIO VARIATION.

**Giard**, A. Variations du nombre et de la forme des ocelles chez les Satyrides. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (133).

**Krulikowski**, L. Notice sur la chasse des lépidoptères durant l'été 1902 dans le district Urzum, gouv. Viatka. (Russ.) Rev. Russ. Ent., Jaroslavl, **3**, 1903, (110–114).

## BIONOMIC VARIATION.

**Brown.** Eclosion hors saison de *Mania typica*. Bordeaux, Actes soc. linn., **58**, 1903, (Proc. verb. CLXXXVII-CLXXXVIII).

**Cook, John H.** Out of due season [Emergence of Lepidoptera]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (142-144).

**Dixey, F. A. D.** On Lepidoptera from the White Nile collected by Mr. W. L. S. Loat, F.Z.S.; together with further notes on seasonal dimorphism in butterflies. London, Trans. Ent. Soc., **1903**, (141-163, pl. VII.).

**Jachontov, A. A.** Sur le trimorphisme, suivant les saisons, de quelques Piérides. (Russ.) Rev. Russ. Ent., Jaroslavl, **3**, 1903, (157-160).

**Siépi, P.** Apparition tardive de *Libythea celtis*. Feuille jeunes natural., Paris, (sér. 4), **33**, 1902, (34).

## CROSSES AND HYBRIDS.

**Doleschall, H.** *Zygaena ochsenheimeri* (Selbständige Art, Ferner Hybrid von *Z. minos* ♀ and *Syntomis phegea* ♂). Soc. Entomol., Zürich, **17**, 1902, (121).

**Frings, Carl.** Ein Hybride von *Parnassus apollo-deliuss*. l.c. **18**, 1903, (52).

**Mory, Claude E.** Revision der bis jetzt bekannten von hybr. *epilobii* B abgeleiteten Bastarde. Schaffhausen, Mitt. Schweiz. Entomol. Ges., **10**, 1903, (460-469).

**Pickett.** Results of crossing varieties of *Angerona*. Ent. Rec., London, **15**, 1903, (144-149).

**Schultz, Oskar.** Ueber Kreuzungsprodukte von *Lasiocampa quercus* L. var. *siacula* Stdgr. ♂ × var. *alpina* Frey ♀ und deren Rückkreuzung mit *Las. quercus* var. *siacula* Stdgr. Ent. Zs., Guben, **16**, (1902/03), 1903, (94).

## HEREDITY.

**Contagne, G.** Recherches expérimentales sur l'hérédité chez les vers à soie. Bul. sci. France Belgique, Paris, **37**, 1903, (1-194, av. fig. et 9 pls.).

**Doncaster, L.** Mendel's law of heredity in insects. Ent. Rec., London, **15**, 1903, (142-144).

(N 2-9053)

## INBREEDING.

**Barrett, C. G.** An experience in interbreeding *Clostera anachoreta*. Ent. Mag., London, **39**, 1903, (215-216).

## EVOLUTION.

**Weeks, Archibald C.** Theory as to evolution of secondaries of moths of the genus *Catocala*. New York, N.Y., J. Ent. Soc., **11**, 1903, (221-226).

## 4427 GEOGRAPHICAL DISTRIBUTION.

## b LAND AS A WHOLE.

Notes de géographie zoologique. Les lépidoptères du genre *Argynnis*. par R. Feuille jeunes natural., Paris, (sér. 4), **33**, 1902, (9).

**Giard, A.** *Coenonympha hero* L. l.c. 1903, (203).

**Nerville, F. de.** A propos de la géonémie de *Podalirius*. l.c. (205).

**South, R.** Catalogue of the collection of palaearctic butterflies formed by the late John Henry Leech, and presented to the Trustees of the British Museum by his mother, Mrs. Eliza Leech. London, 1902, (vi + 228, 2 pls.). 4to.; [review], Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (526).

## d EUROPE.

**Fuchs, A.** Drei neue Lepidopteren-Formen der europäischen Fauna. Soc. Entomol., Zürich, **18**, 1903, (3).

——— *Bapta bimaculata* F. var. et ab. *bipunctata* Fuchs und *Gnophos difficilis* Alph. n. var. *korlata*. l.c. (43).

——— Alte und neue Kleinfalter der europäischen Fauna. Stettiner ent. Ztg., **64**, 1903, (227-247).

——— Alte und neue Gross-Schmetterlinge der europäischen Fauna. Wiesbaden, Jahrb. Ver. Natk., **55**, 1902, Abt. 11, (67-80).

**Fuchs, Ferdinand.** Zwei neue Schmetterlingsformen der palaarktischen Fauna. Soc. Entomol., Zürich, **18**, 1903, (73-74).

**Kirby**, W[illiam] F[orsell]. The butterflies and moths of Europe. London, Paris, New York and Melbourne (Cassell & co., Ltd.), 1903, (Lxii + 432, with illustr., pl.). 27.5 cm.

**Neuburger**, Wilhelm. Drei neue *Thais*-Aberrationen aus Digne und Budapest. Soc. Entomol., Zürich, 17, 1903, (154-155).

**Schreiber**, Carl. Raupen-Kalender. [Nach den Futterpflanzen geordnet für das mitteleuropäische Faunengebiet]. (Forts.) D. ent. Zs. Iris, Berlin, 14, 1901, [1902], (277-326).

**Swinhoe**, C. A revision of the Old World *Lymantriidae* in the national collection. London, Trans. Ent. Soc., 1903, (375-497).

**Tschetwerikoff**, S. *Dendrolimus larici* Tschetw. nov. sp. Ein neuer und schädlicher Spinner der paläarktischen Region. Soc. Entomol., Zürich, 18, 1903, (89-90).

**Tutt**, J. W. Revision of the European Alucitides. Ent. Rec., London, 15, 1903, (251-254).

#### da SCANDINAVIA.

**Boas**, J. E. V. . . . *Domyz pini* in Norway 1903. (Danish) Forstl. Tidssk., Kristiania, 2, 1903, (107-112, 2 pls.).

**Hofgren**, Gottfried. Pyralids new for the Swedish fauna. (Swedish) Entomol. Tidsskr., Stockholm, 22, 1901, (241-248).

**Kloos**. [Reise nach Lappland zum Qvikkjokk-Gebirge]. Berliner ent. Zs., 48, 1903, ((7) (9)).

**Lampa**, Sven. Two of our moths harmful to cereals. *Hadena tritici* Lin., *H. secalis* Lin. (Swedish) Entomol. Tidsskr., Stockholm, 22, 1901, (129-136, with pl.).

— *Nephopteryx similella* Zmk., a Pyralid new for the Swedish fauna. (Swedish) l.c. (248).

**Strand**, Embr. Neue norwegische Schmetterlingsformen. Arch. Math. Naturv., Kristiania, 25, 1903, (24).

#### db RUSSIA IN EUROPE.

**Bartel**, Max. Lepidopteren des südlichen Urals, gesammelt von Herrn Julius Tief. D. ent. Zs. Iris, Berlin, 15, (1902), 1903, (183-230).

**Östverikow**, S. S. *Pyrrhia exprimens* Walker = *vezilliger* Clor. *aconiti* Haeltzermann dans la region paléarctique. (Russ.) Rev. Russ. Ent., Jaroslavl, 3, 1903, (384-385).

**Egorov**, N. M. Die Lepidopteren am nördlichen Abhange des centralen Kaukasus. (Russ.) Tiflis, Izv. Kav. Otd. Russ. Geogr. Obsč., 16, 1, 1903, (9-24).

**Kralickovskij**, L. Notice sur la chasse des lépidoptères durant l'été 1902 dans le district Urzum, gouv. Viatka. (Russ.) Rev. Russ. Ent., Jaroslavl, 3, 1903, (110-114).

**Kusnezov**, N. J. Excursions d'été, en 1902, sur la côte sud de la Crimée. (Russ.) l.c. (5-7).

**Lutzu**, C. von. *Hadena adusta* var. *bathensis* n. Soc. Entomol., Zürich, 18, 1903, (129-131).

**Markov**, M. Matériaux pour servir à la faune des macrolépidoptères du gouvernement de Poltava. (Russ.) Charikov, Trd. obsč. ispyt. prir., 27, 1902, [1903], (257-272).

**Norman**, A. M. Notes on the Natural History of East Finmark. [Lepidoptera] Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (166-173).

#### dc GERMAN EMPIRE.

[**Busack**, E.] Uebersicht der von Herrn E. Busack bei Schwerin und Waren gefangenen Grossschmetterlinge. [Mit Vorwort von M. Gillmer.] Güstrow, Arch. Ver. Natg., 57, Abt. 1, 1903, (105-127).

**Disqué**, H. Verzeichniss der in der Umgegend von Speyer vorkommenden Kleinschmetterlinge. (Forts.) D. ent. Zs. Iris, Berlin, 14, (1901), 1902, (197-228). Nachtrag dazu: *ib.*, 15, (1902), 1903, (343).

— Verzeichniss der in der Pfalz vorkommenden, aber bisher noch nicht bei Speyer aufgefundenen Kleinschmetterlinge. l.c. (229-250).

**Fuchs**, A. *Cucullia linoxyridis* n. sp. aus der Loreley-Gegend. Soc. Entomol., Zürich, 18, 1903, (83-84).

**Gauckler**, H. II. Nachtrag zu dem i. J. 1896 hrag. Verzeichnisse der Grossschmetterlinge der Umgegend von

Karlsruhe, Baden, Bruchsal, Durlach und Ettlingen. D. ent. Zs. Iris, Berlin, **15**, (1902), 1903, (339-342).

**Jammerath**, H. Systematisches Verzeichnis der in der Umgegend von Osnabrück bisher beobachteten Grossschmetterlinge (Macrolepidoptera). Osnabrück, Jahresber. natw. Ver., **15**, (1901/1902), 1903, (1-4, 87-100).

**Pabst**. Die *Sphingidae* B., *Zygaenidae* B. und *Syntomidae* HS. der Umgegend von Chemnitz und ihre Entwicklungsgeschichte. Ent. Jahrb., Leipzig, **12**, 1903, (144-159).

**Schultz**, Oskar. Ueber eine bemerkenswerte Form von *Apatura iris* L. Soc. Entomol., Zürich, **17**, 1903, (161).

——— Ueber einige aberrative Formen von *Aglia tau* L. darunter ab. *caecata* Schultz. l.c. (178-179).

**Schütze**, K. T. Die Kleinschmetterlinge der sächsischen Oberlausitz. [TI 3: Tineina, Micropterygina.] D. ent. Zs. Iris, Berlin, **15**, 1902, (1-49).

**Speiser**, [Paul]. Die Schmetterlingsfauna der Provinzen Ost- und Westpreussen. (Beiträge z. Naturkunde Preussens, hrsg. v. d. physik.-ökon. Gesellsch. Königsberg. N. 9.) Königsberg i. Pr. (W. Koch in Komm.), 1903, (III + 148). 30 cm.

**Warnecke**, Georg. Beitrag zur Lepidopterenfauna Göttingens. Insektenbörse, Leipzig, **20**, 1903, (59-60).

——— Beiträge zur Lepidopterenfauna Schleswig-Holsteins. Heimat, Kiel, **13**, 1903, (180-183).

#### dd BELGIUM.

**Crombrughe de Picquendaels**, de. Note sur quelques microlépidoptères nouvellement observés en Belgique. Bruxelles, Ann. Soc. ent. Belgique, **46**, 1902, (57-58).

**Lambillon**, L. J. Catalogue des lépidoptères de Belgique donnant les noms de tous les papillons pris en Belgique jusqu'à ce jour avec leurs variétés, leurs synonymes, les époques d'apparition, les localités, les époques des chenilles, leur nourriture, etc. et une liste de papillons paléarctiques après chaque groupe indigène. 2<sup>me</sup> Ed. considérablement augmentée. Fasc. V. Namur (V. Delvaux), 1903, (65-80). 8vo. Le Fasc. fr. 0.50.

#### de BRITISH ISLANDS.

**Barrett**, C. G. *Nephopteryx eimilella* Zinck. A new British Phycid. Ent. Mag., London, **39**, 1903, (1).

——— *Acrobasis verrucella* H.b. and *rubrotibiella* F.R., as British insects. l.c. (164-166).

——— The Lepidoptera of the British Islands: Pts. 95-106. Being vol. IX, (1-454, pls. 377-424) [carrying the work to the end of the *Pyralidae*].

**Kloofield**, E. N. Suffolk Lepidoptera in 1902. Ent. Mag., London, **39**, 1903, (88-89).

**Brown**, H. H. *Callophrys (Thecla) rubi* (Linn.) in Fife. Ann. Scot. Nat. Hist., Edinburgh, **1903**, (187).

——— Butterflies and dragonflies in Banffshire. l.c. (247).

**Capper**, C. Occurrence of *Thalera fimbrialis* Scop. in Great Britain. Ent. Mag., London, **39**, 1903 (216).

**Chapman**, T. A. The European *Oryzias*: their specialization in habits and structure. Ent. Rec., London, **15**, 1903, (169-171, with pls.).

**Dale**, C. W. Historical notes on *Lycæna arion* in Britain. Ent. Mag., London, **39**, 1903, (4-5).

**Day**, G. O. A list of Lepidoptera found in the counties of Cheshire, Flintshire, Denbighshire, Carnarvonshire, and Anglesea. Assisted by I. Arkle, Herbert Dobie and Robert Newstead. Chester, Ann. Rep. Soc. Nat. Sci., No. 5, 1903, (viii + 120).

**Jäger**, J. *Ophiura stolidus* Fab. A Noctuid new to Britain. Ent. Mag., London, **39**, 1903, (269).

**Kaye**, W. J. Lepidoptera in South Kerry. Irish Nat., Dublin, **12**, 1903, (66-67).

**Longstaff**, G. B. Further notes on Lepidoptera observed at Mortehoe, North Devon. Ent. Mag., London, **39**, 1903, (194-197).

**Renton**, W. A list of the Lepidoptera of Roxburghshire. Entomologist, London, **36**, 1903, (130-135).

**Willis**, J. C. and **Burkill**, J. H. Notes on the anthophilous insect fauna of the Clova mountains. Ann. Scot. Nat. Hist., Edinburgh, **1903**, (29-37, 99-102).

df FRANCE.

**Brascassat, M.** Observations lépidoptérologiques. *Epinephele janira* L. *Rhodocera cleopatra* L.—*Chelonia pudica* Esp. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (64).

**Bray, E.** Lépidoptères capturés aux environs de Virton. Bruxelles, Ann. Soc. ent. Belgique, **46**, 1902, (143-146).

**Brown.** *Tozocampa pastinum* des environs de Bordeaux. Bordeaux, Actes soc. linn., **58**, 1903, (Proc.-verb., CLXXXIX).

——— Note sur quelques Lépidoptères de nos environs [de Bordeaux]. l.c. (Proc.-verb., CCLVII-CCLVIII).

**Chrétien, P.** Les *Erebia* de France. Naturaliste, Paris, (sér. 2), **25**, 1903, (71-72).

**Coulon, L.** La chasse aux papillons dans la région d'Elbeuf. Elbeuf, Bul. soc. sci. nat., **20**, 1901, [1902], (61-76).

**Dietze, Karl.** Von der spanischen zur italienischen Mittelmeergrenze. Sammeltege in Südf Frankreich; nebst Bericht über die vorgefundenen Eupitheci. D. ent. Zs. Iris, Berlin, **15**, (1902), 1903, (231-268).

**Dupont, L.** Insectes du Jardin (Mont-Blanc). Elbeuf, Bul. soc. étud. sci. nat., **20**, 1901, [1902], (41).

——— Les *Argynnis* de la Normandie. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (80-81).

**Dupuy, G.** *Rhodocera cleopatra* dans les Charentes. Question. l.c. 1902, (9-10).

——— Les *Argynnis* de la Charente, des Deux-Sèvres, de la Dordogne et de la Gironde. l.c. 1903, (196-198).

**Foulquier, G.** *Leucophasia lathyri* III. l.c. (151).

**Giard, Alfred.** *Rhodocera cleopatra*, *Euprepia pudica* et *Cleophana anarrhini*. Réponse partielle aux questions de M. G. Dupuy. l.c. 1902, (33-34).

——— Les *Argynnis* de la France septentrionale. l.c. 1903, (43-46).

**Godon, J.** Capture du *Saturnia pyri*. l.c. 1902, (9).

**Oberthür, C.** The Hesperides of Brittany. Ent. Rec., London, **15**, 1903, (179-180).

**Rocquigny-Adanson, G. de.** Aire de *Papilio podalirius*. Feuille jeunes natural., Paris, (sér. 4), **31**, 1903, (19).

——— *Rhodocera cleopatra* L. l.c. **33**, 1902, (33).

——— *Rhodocera cleopatra*. l.c. 1903, (52).

——— Les *Argynnis* du centre de la France. l.c. (119-123).

——— Géonémie de *Papilio podalirius* L. Limite septentrionale de son extension en France et en Belgique. l.c. (163).

——— *Coenonympha hero* L. l.c. (169).

——— *Argynnis pandora* Schiff. l.c. (169-170).

——— A propos de la géonémie du *Podalirius*. l.c. (205).

**Rondon, P.** Catalogue des lépidoptères des Pyrénées. Bordeaux, Actes soc. linn., (sér. 6, 7), **57**, 1902, (177-355).

**Sheldon, W. G.** Lepidoptera at Pont-du-Gard and Digne. Ent. Rec., London, **15**, 1903, (193-196).

**Siépi, Un** lépidoptère nouveau pour la Provence (*Plusia aurifera*). Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (101-102).

dg SPAIN.

**Chapman, T. A.** A new Phalaenopterygid species and genus from Spain. *Pyropsyche moncaunella*. Ent. Rec., London, **15**, 1903, (324-330).

**Hampson, Sir G. F.** New forms of *Pyralidae* from Spain. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (58).

**Jones, A. H.** Lepidoptera in Southern Spain during the last half of October, 1902. Ent. Mag., London, **39**, 1903, (54-56).

**Prout, L. B.** Notes on Spanish Geometrids collected by Dr. Chapman in 1902. Ent. Rec., London, **15**, 1903, (96-98).

**Walsingham, Lord.** Spanish and Moorish Micro-Lepidoptera [continued.] Ent. Mag., London, **39**, 1903, (179-187, 209-214, 262-268, 292-293).

## dh ITALY.

**Browne, C. S.** A list of the Lepidoptera of the island of Capri, with a few notes. *Entomologist*, London, **36**, 1903, (254-256, 284-286, 307-309).

**Fuchs, A.** *Stilbia insularis* n. sp. *Soc. Entomol.*, Zürich, **18**, 1903, (9-10).

**Neustetter, Heinrich.** Ein lepidopterologischer Ausflug in die Euganaeen u. nach Battaglia in Ober-Italien. *Wien, JahrBer. Entom. Ver.*, **11**, (1900), 1901, (87-102).

## di SWITZERLAND.

Captures' intéressantes de lépidoptères en Suisse. Feuille jeunes natural., Paris, (sér. 4), **33**, 1902, (13). [D'après J. Jullien, Notes sur les *Catocala puerpera*, *Soc. ent. Zürich*, 1902, No. 13, et de Rougemont, Rameau de sapin, Oct., 1902].

**Dupont, L.** Insectes du Jardin (Mont-Blanc). Elbeuf, *Bul. soc. étud. sci. nat.*, **20**, 1901, [1902], (41).

**Favre, E.** Supplément à la "Faune des Macrolépidoptères du Valais. Schaffhausen, *Mitt. Schweiz. Entomol. Ges.*, **11**, 1903, Beilage, (1-39).

**Jullien, J.** Notes sur la *Catocala puerpera*. *Soc. Entomol.*, Zürich, **17**, 1902, (97-98).

**Püngeler, Rudolf.** *Caradrina nullschlegeli* n. sp. *l.c.* 1903, (145-147).

**Wheeler, G.** The butterflies of Switzerland and the Alps of Central Europe. London, 1903, (vi + 162). 8vo. [Review], *Entomologist*, London, **36**, 1903, (327); *Ent. Rec.*, London, **15**, 1903, (345-347).

## dk AUSTRIA-HUNGARY.

**Gross, Heinrich.** Beitrag zur Macrolépidopteren-Fauna von Oberösterreich. . . . Wien, *JahrBer. Entom. Ver.*, **11**, (1900), 1901, (25-83).

**Höfner, G.** Die Schmetterlinge des Lavantales und der beiden Alpen Korund Saualpe. Carinthia II, Klagenfurt, **93**, 1903, (177-180).

**Hormusaki, Constantin Freiherr von.** Ueber die in den Karpathen einheimischen Arten der Gattung *Erebia* Dalm. und deren Beziehungen zur pleistocänen Fauna Mitteleuropas. *D. ent. Zs. Iris*, Berlin, **14**, (1901), 1902, (353-380).

Ueber einige merkwürdige *Zygaena*-Formen aus der Bukowina. *Soc. Entomol.*, Zürich, **17**, 1902, (137-139).

**Naufock, Albert.** Verzeichnis der Lepidopteren des Kronlandes Niederösterreich. Wien, *JahrBer. Entom. Ver.*, **12**, (1901), 1902, (21-104).

**Rebel, H[ans].** Neue Lepidopteren aus Bosnien und der Herzegovina. *Wien, Verh. ZoolBot. Ges.*, **51**, 1901, (798-804).

**Trost, Alois.** . . . Steiermark . . . Beitrag zur Lepidopteren-Fauna . . . Graz, *Mitt. Natw. Ver. Steierm.*, **1902**, 1903, (326-340).

**Wagner, Fritz.** *Pharepis* (recte *Therapis*) *evonymaria* Schiff nov. ab. *Soc. Entomol.*, Zürich, **18**, 1903, (92-93).

## dl BALKAN PENINSULA.

**Haberhauer, Jos.** *Porthesia rebeli* n. sp. *Soc. Entomol.*, Zürich, **17**, 1902, (82).

**Neuburger, Wilhelm.** *Gnophria rubricollis* L. aber. *floricollis* Neubr. *l.c.* 1903, (155).

**Rebel, H[ans].** Lepidopteren aus Morea. Nachtrag. *Berliner ent. Zs.*, **48**, 1903, (243-249).

**Sahlberg, John.** [Entomologische Forschungsreisen in den Mittelmeergegenden und Central-Asien]. (Schwedisch) *Helsingfors, Öfvers. F. Vet. Soc.*, **45**, [No. 9], 1902-1903, (1-34); [No. 17], (1-38).

## dm MEDITERRANEAN AND ISLANDS.

**Fuchs, A.** Neue Kleinfalter des Mittelmeergebiets. *Stettiner ent. Ztg.*, **64**, 1903, (3-16).

**Prout, L. B.** Some Geometrides collected by Paymaster-in-Chief Gervase F. Mathew, R.N., on the Mediterranean etc. *Entomologist*, London, **36**, 1903 (204-206).

**Sahlberg, J.** Entomologische Forschungsreisen in den Mittelmeergegenden und Central-Asien. (Schwedisch) Helsingfors, Ofvers. F. Vet. Soc., **45**, [No. 9], 1902-1903, (1-34); [No. 17], (1-38).

# ASIA.

**Fruhstorfer, H.** *Elymnias* nn. subsp. *Papilio antiphates*: *antiphonus* nn. subsp. Soc. Entomol., Zürich, **16**, 1902, (169-170).

Neue Papilioformen aus dem Indo-Australischen Gebiet. *l.c.* **17**, 1902, (57).

Neue Papilioformen aus Ostasien. *l.c.* (73-74).

Neue ostasiatische Rhopaloceren. *l.c.* (81-82).

Verzeichnis der in Hinter-Indien gesammelten Pieriden. *l.c.* **18**, 1903, (18-19, 25-26).

Neue Pieriden aus Ostasien. *l.c.* (35-36).

Zwei neue Parnassier. *l.c.* (49-50).

*Saletara panda*: *eugania* n. subsp. *l.c.* (124-125).

Neue Nymphaliden aus Ostasien. D. ent. Zs. Iris., Berlin, **16**, 1903, (22-42).

**Püngeler, Rudolf.** Neue Macrolepidopteren aus Centralasien. (Forts.) *l.c.* **15**, 1902, (147-160, mit 2 Taf.).

**Swinhoe, C.** Descriptions of new Eastern moths. Ann. Mag. Nat. Hist., London, (Ser. 7), **14**, 1903, (193-200).

New species of Eastern and African Lepidoptera. *l.c.* (499-511).

# ASIATIC RUSSIA.

**Östverikov, S. S.** *Pyrrhia exprimens* Walker = *vezilliger* Chr. = *aconiti* Haeltzermann dans la region paléarctique. (Russ.) Rev. Russ. Ent., Jaroslavl, **3**, 1903, (384-385).

**Herz, O.** Beitrag zur Kenntniss der Lepidopterenfauna der Tschuktschen-Halbinsel. St. Petersburg, Ann. Mus. zool. Ac. Sc., **8**, 1903, (14-16).

Verzeichniss der auf der Mammuth-Expedition gesammelten Lepidopteren. *l.c.* (61-87).

**Herz, O.** Lepidopteren-Ausbeute des Lena-Expedition von B. Poppus im Jahre 1901. Helsingfors, Ofvers. F. Vet. Soc., **45**, [No. 15], 1902-1903, (1-22, mit 1 pl.).

**Krulkovskij, L.** Notes pour servir à l'étude des lépidoptères de la Sibirie occidentale et du Semiretje. (Russ.) Rev. Russ. Ent., Jaroslavl, **3**, 1903, (300-303).

# CHINA AND DEPENDENCIES.

**Fruhstorfer, H.** *Saletara panda*: *eugania* n. subsp. Soc. Entomol., Zürich, **18**, 1903, (124-125).

# JAPAN.

**Fruhstorfer, H.** Eine neue *Elymnias* von Formosa. D. ent. Zs. Iris, Berlin, **16**, 1903, (17-19).

**Miyake, Tsunekata.** [Heterocera of Japan, figured and annotated]. (Japanese) Dobuts. Z., Tokyo, **15**, 1903, (311-316).

Japanese Heterocera described and figured. (Japanese) *l.c.* (354-356, 384-390).

**Neuburger, Wilhelm.** *Papilio machaon* L. in Japan (2 nn. varr.). Soc. Entomol., Zürich, **18**, 1903, (42-43).

# COCHIN CHINA.

**Fruhstorfer, H.** *Papilio xenocles*: *kephisos* n. subsp. Soc. Entomol., Zürich, **16**, 1902, (145-146).

Tonkin-Pieriden (nn ab. in: *Nepheronia*). Soc. Entomol., Zürich, **18**, 1903, (41-42).

Verzeichnis der in Tonkin, Annam und Siam gesammelten Papilioniden und Besprechung verwandter Formen. Berliner ent. Zs., **47**, 1902, [1903], (167-234). [4427 ee 4431].

Verzeichnis der in Tonkin, Annam und Siam gesammelten Nemeobiniinae und Libythaeinae und Besprechung verwandter Formen. *l.c.* **48**, 1903, (274-296).

Neue und seltene Lepidopteren aus Annam und Tonkin und dem malayischen Archipel. D. ent. Zs. Iris, Berlin, **14**, (1901), 1902, (265-276, mit 1 Taf.).

**Fruhstorfer, H.** Verzeichniss der in Tonkin, Annam und Siam gesammelten Pieriden und Besprechung verwandter Formen. *I.c.* **15**, (1902), 1903, (269–305).

——— Neue Pieriden aus Ost- und Süd-Asien. *I.c.* **16**, 1903, (47–50).

**Roscher, J.** Zwei neue Morphiden. *Soc. Entomol.*, Zürich, **17**, 1903, (153–154).

#### ee SIAM.

**Fruhstorfer, H.** Verzeichnis der in Tonkin, Annam und Siam gesammelten Papilioniden und Besprechung verwandter Formen. *Berliner ent. Zs.*, **47**, 1902, [1903], (167–234).

——— Verzeichnis der in Tonkin, Annam und Siam gesammelten Nemeobiinae und Libythaeinae und Besprechung verwandter Formen. *I.c.* **48**, 1903, (274–296).

——— Verzeichniss der in Tonkin, Annam und Siam gesammelten Pieriden und Besprechung verwandter Formen. *D. ent. Zs. Iris*, Berlin, **15**, (1902), 1903, (269–305).

#### ef BRITISH INDIA.

**Aitken, E. H. and Comber, E. D.** A list of the butterflies of the Konkan. *Bombay, J. Nat. Hist. Soc.*, **15**, 1903, (42–55).

**Dudgeon, G. C., Elwes, H. J. and Hampson, Sir G.** A catalogue of the Heterocera of Sikkim and Bhutan. *I.c.* **14**, 1903, (761–763); **15**, 1903, (319–326).

**Fruhstorfer, H.** *Parnassius imperator: augustus* n. subsp. *Soc. Entomol.*, Zürich, **18**, 1903, (113).

——— Neue *Papilio*-Formen aus dem indo-malayischen Gebiet. *D. ent. Zs. Iris*, Berlin, **15**, 1902, (161–168).

——— Neue Lepidopteren aus dem indo-malayischen Gebiet. *I.c.* (169–178).

——— Zwei neue Sikkim-Falter. *Insektenbörse, Leipzig*, **20**, 1903, (148).

**Hampson, Sir G[eorge] F.** The moths of India, supplementary paper to the volumes in the Fauna of British India,

Ser. II, Parts VIII–X. *Bombay, J. Nat. Hist. Soc.*, **14**, 1903, (639–659); **15**, 1903, (19–37, 206–225).

**Leslie, G. A. and Evans, W. H.** The butterflies of Chitral. *Bombay, J. Nat. Hist. Soc.*, **14**, 1903, (666–678).

**Moore, F.** *Lepidoptera indica*. Parts LXI–LXVI. Vol. VI. London, 1903, (1–104, pls. 467–512).

#### eg MALAY PENINSULA.

**Bethune-Baker, G. T.** A new species of *Archopala* from Singapore and British New Guinea. *Ent. Mag.*, London, **39**, 1903, (217–218).

**Fruhstorfer, H.** Neue Pieriden aus dem indo-australischen Gebiet. *Soc. Entomol.*, Zürich, **18**, 1903, (17–18).

——— *Papilio macfarlanei: cestius* n. subsp. (Lokalität unbenannt.) *I.c.* (49).

——— Eine neue *Ornithoptera*-form aus Sumatra. *I.c.* (57).

——— Neue Rhopaloceren des malayischen Archipels. *I.c.* (73).

——— Neue und seltene Lepidopteren aus Annam und Tonkin und dem malayischen Archipel. *D. ent. Zs. Iris*, Berlin, **14**, (1901), 1902, (265–276, mit 1 Taf.).

——— Neue Lepidopteren aus dem austromalayischen Gebiet. *I.c.* (329–330).

——— Neue *Papilio*-Formen aus dem indo-malayischen Gebiet. *I.c.* **15**, 1902, (161–168).

——— Neue Lepidopteren aus dem indo-malayischen Gebiet. *I.c.* (169–178).

——— Neue *Papilio*-formen und andere Lepidopteren aus Ost-Asien und dem malayischen Archipel. *I.c.* (1902), 1903, (306–315).

——— Eine neue Satyride von Borneo. *I.c.* **16**, 1903, (20–21).

——— Neue Falter von der Insel Obi. *Insektenbörse, Leipzig*, **20**, 1903, (349, 357).

**Fuchs, August.** Beiträge zur Kenntniss der Lepidopteren-Fauna von Sumatra. Erste Besprechung: Neue Geometriden. *Wiesbaden, Jahrb. Ver. Natk.*, **55**, 1902, Abt. II, (81–91).



**Hering**, Ed. Uebersicht der Sumatra-Pyralidae. III. (Forts.) Stettiner ent. Ztg. **64**, 1903, (38-97, mit 1 Taf.).

**Plopers**, [Marinus Cornelius] et **Snellen**, [Pieter Cornelis Tobias]. . . . . Enumération . . . . . des Lépidoptères hétérocères (*Zygaenidae*) de Java. 's Gravenhage, Tijdschr. Ent., **45**, 1903, (151-242, av. 3 pls.).

**Sahlberg**, J. Entomologische Forschungsreisen in den Mittelmeergegenden und Central-Asiens. (Schwedisch) Helsingfors, Öfvers. F. Vet. Soc., **45**, [No. 9], 1902-1903, (1-34); [No. 17], (1-38).

**Swinhoe**, C. Descriptions of new Eastern moths. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (193-200).

Report on the Heterocera. Fascic. Malay. Zool., **1**, (51-109).

**Warren**, W. New *Drepanulidae*, *Thyrididae*, *Uraniidae*, and *Geometridae*, from the Oriental region. Nov. Zool., Tring, **10**, 1903, (255-270).

eh PERSIA: AFGHANISTAN:  
BALUCHISTAN.

**Neuburger**, Wilhelm. *Chrysophanus ochimus* H. S. var. *hyrcana* Neubgr. Soc. Entomol., Zürich, **18**, 1903, (59).

ei ASIATIC TURKEY.

**Fuchs**, A. Zwei neue *Leucanitis*-Formen aus Aksu. Soc. Entomol., Zürich, **18**, 1903, (50-51).

**Püngeler**, Rudolf. Neue Macrolepidopteren aus Palaestina. D. ent. Zs. Iris, Berlin, **15**, 1902, (143-146, mit 1 Taf.).

f AFRICA.

**Aurivillius**, Chr[istofer]. Diagnosen neuer Lepidopteren aus Afrika. 6. Entomol. Tidskr., Stockholm, **22**, 1901, (113-128, with pl.).

**Druce**, H. H. C. J. Description of a new species of African *Heperinae*. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (636).

**Fruhstorfer**, H. Neue afrikanische Lepidopteren. Stettiner ent. Ztg. **64**, 1903, (359-361).

**Rothschild**, Hon. W. and **Jordan**, K. Some new African *Papilio*s. Nov. Zool., Tring, **10**, 1903, (488-489).

**Sharpe**, E. M. The butterflies collected in Equatorial Africa by Captain Clement Sykes. Entomologist, London, **36**, 1903, (5-8, 36-40).

**Swinhoe**, C. New species of Eastern and African Lepidoptera. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (499-511).

**Warren**, W. New African *Thyrididae* and *Geometridae* in the Tring Museum. Nov. Zool., Tring, **10**, 1903, (271-278).

**Weymer**, Gustav. Einige afrikanische Lepidopteren. D. ent. Zs. Iris, Berlin, **16**, 1903, (221-225, mit 1 Taf.).

fa MEDITERRANEAN STATES.

**Sahlberg**, J. Entomologische Forschungsreisen in den Mittelmeergegenden und Central-Asien. (Schwedisch) Helsingfors, Öfvers. F. Vet. Soc., **45**, [No. 9], 1902-1903, (1-34); [No. 17], (1-38).

**Vaucher**, A. Notes sur les *Argynnis* du Maroc. Feuille jeunes natural., Paris, (sér. 4), **33**, 1902, (34).

**Walsingham**, Lord. Spanish and Moorish Micro-Lepidoptera [continued]. Ent. Mag., London, **30**, 1903, (179-187, 209-214, 262-268, 292-293).

fb N.E. AFRICA.

**Dixey**, F. A. D. On Lepidoptera from the White Nile, collected by Mr. W. L. S. Loat, F.Z.S.; together with further notes on seasonal dimorphism in butterflies. London, Trans. Ent. Soc., **1903**, (141-163, pl. VII).

**Lathy**, P. L. An account of a collection of Rhopalocera made on the Anambara Creek in Nigeria, West Africa. l.c. (83-206, pl. VIII).

**Rothschild**, Hon. W. and **Jordan**, K. Lepidoptera collected by Oscar Neumann in North-east Africa. Nov. Zool., Tring, **10**, 1903, (491-542).

**Sahlberg**, B. Entomologische Forschungsreisen in den Mittelmeergegenden und Central-Asien. (Schwedisch) Helsingfors, Öfvers. F. Vet. Soc., **45**, [No. 9], 1902-1903, (1-34); [No. 17], (1-38).

**Warren, W. and Bethschild, N. C.** Two new species of Lepidoptera from the Wady el Natron, Egypt. Entomologist, London, **36**, 1903. (225, 226, pl. IV).

*fd* WEST AFRICA.

**Bethune-Baker, G. T.** On new species of *Lycaenidae* from West Africa. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (324-334).

**Druce, H. H. C. J.** Descriptions of four new species of West-African *Lycaenidae*. Lc. **11**, 1903, (69-71).

*fe* ANGOLA.

**Weymer, Gustav.** Die Lepidopteren der Kunene-Sambesi-Expedition. [In: Kunene-Sambesi-Expedition, hrsg. v. O. Warburg.] Berlin, 1903. (543-559).

*ff* EAST AFRICA.

**Hampson, Sir G. F.** Lepidoptera II. Phalaenae. Nat. Hist. Sokotra, (321-338, pl. XX).

**Neave, S. A.** A new species of *Lycaenid* from Uganda and Lake Victoria Nyanza. Ent. Mag., London, **30**, 1903, (136-138).

**Ogilvie-Grant, W. R.** Lepidoptera. I. Rhopalocera. Nat. Hist. Sokotra, (295-318, pls. XVIII, XIX).

**Pagenstecher, Arnold.** Tagfalter. (Wissenschaftl. Resultate der Reise Carlo Frhrn. v. Erlanger's durch Süd-Schosa, Galla u. Somaliländer.) Wiesbaden, Jahrb. Ver. Natk., **55**, 1902, Abt. II, (113-204, mit 1 Taf.).

**Thurau, F.** Neue Lepidopteren aus Ost- und Central-Afrika im Königl. zoologischen Museum zu Berlin. Berliner ent. Zs., **48**, 1903, (301-314).

**Walsingham, Lord.** Lepidoptera. III. *Pterophoridae* and *Tineina*. Nat. Hist. Sokotra, (343-356, pl. XXI).

*fg* SOUTH AFRICA.

**Barrett, F.** Further notes on South African Lepidoptera. Ent. Mag., London, **39**, 1903, (35-38, 76-83, 138-143).

**Distant, W. L.** Insecta transvaalien-sia, Pt. IV, (81-96, pls. VII-VIII).

**Hampson, Sir G. F.** A remarkable new Lepidopterous insect from Zululand. London, Trans. Ent. Soc., **1903**, (137-139).

**Mally, C. W.** Fruit seriously injured by moths. [Cape Town, South Africa.] Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **31**, 1902, (90-93).

**Walsingham, Lord.** Description of a new species of *Batrachedra* associated with spiders in S. Africa. Ent. Mag., London, **39**, 1903, (166-167).

*fh* MADAGASCAR.

**Poujade, G. A.** Description d'une nouvelle espèce de lépidoptère de Madagascar. Bul. Muséum, Paris, **1903**, (57).

*g* NORTH AMERICA.

**Busck, August.** A revision of the American moths of the family *Gelechiidae*, with descriptions of new species. Washington, D.C., Smithsonian Inst., Nation. Mus. Proc., **25**, 1903, (767-938, with pl.). Separate. 24.5 cm.

**Dyar, Harrison G[ray].** A review of the North American species of *Protonuba* and *Prodoxus*. New York, N.Y., J. Ent. Soc., **11**, 1903, (102-104).

——— Synoptic table of the North American species of *Chionobas*. Washington, D.C., Proc. Ent. Soc., **5**, 1902, (42).

——— Synopsis of the North American species of *Erebia*. Lc. 1903, (129-130).

——— Synopsis of the North American species of *Brenthis*. Lc. (130-131).

——— Some recent works in North American Lepidoptera. [Annual address of the President]. Lc. (167-173).

——— Note on the North American white-marked species of *Eucoema*. Lc. (179-180).

**Elwes, H. J.** On a collection of Lepidoptera from Arctic America. London, Trans. Ent. Soc., **1903**, (239-243, pl. IX).

**Holland, W[illiam] J[acob].** The moth book; a popular guide to a knowledge of the moths of North America. New York (Doubleday, Page & Co.), 1903, (xxiv + 479, with illustr., XLVIII pl.). 26.5 cm.

**Smith, John B[ernhardt].** A revision of the boreal American species of *Nonagria* Ochs. Washington, D.C., Proc. Ent. Soc., 5, 1903, (311-321, with pl.).

**Walstingham, Lord.** Review [of Dyar's list of N. American Lepidoptera]. Ent. Mag., London, 39, 1903, (257-261).

#### ga ALASKA.

**Skinner, Henry.** A new moth [*Psychophora fasciata* n. sp.] from Alaska. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (141-143).

#### gf UNITED STATES.

**Dyar, Harrison G[ray].** New North American Lepidoptera with notes on larvae, [with bibliography]. Washington, D.C., Proc. Ent. Soc., 5, 1903, (290-298).

——— A review of the North American species of the Lepidopterous family *Anthroceridae*, [With bibliography]. *L.c.* (322-329).

**Skinner, Henry.** [*Hesperidae* from the United States]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (183).

#### gg NORTH EASTERN UNITED STATES.

**Beutenmüller, William.** Descriptive catalogue of the *Noctuidae* found within fifty miles of New York City. New York, N.Y., Bull. Amer. Mus. Nat. Hist., 14, 1901, (229-312, with 4 pls.).

**Bilson, James E.** [*Vanessa milberti* in Providence, R.I.]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (57).

**Comstock, G. F.** A list of Lepidoptera found in the Adirondack Mts. [with list of other insects]. *L.c.* (197-200).

**Foster, F. H.** *Papilio philenor* in New Hampshire [following food plant, *Aristolochia siphon*]. *L.c.* 13, 1902, (326).

**Geddes, John M.** *Citheronia aspicularis* in Pennsylvania. *L.c.* 14, 1903, (284-285).

**Houghton, C. O.** *Orneodes hexadactyla* Linn. [at Ithaca, N.Y.]. *L.c.* 13, 1902, (89).

**Johnson W. G.** New location for Mediterranean flour moth [*Ephestia kuehniella* from White Co. Indiana]. *L.c.* (159).

**Laurent, Philip.** The moths (Heterocera) of Eastern Pennsylvania. *L.c.* 14, 1903, (43-45, 69-72, 111-113, 139-140, 169-171).

**Wormsbacher, Henry.** Records of Lepidoptera in New Jersey. *L.c.* (201-203).

#### gh SOUTH EASTERN UNITED STATES.

**Beutenmüller, W[illiam].** Description of a new moth [*Olene montana* n. sp.] from North Carolina. New York, N.Y., Bull. Amer. Mus. Nat. Hist., 19, 1903, (585-586). Separate. 24.5 cm.

**Brimley, C. S. and Sherman, Franklin, jr.** A morning's collection at Raleigh, N. C. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (230-232).

**Comstock, John and Comstock, Hurd.** A trip to Lake Josephine, Fla., [with list of *Rhopalocera* taken]. *L.c.* 13, 1902, (75-77).

**Laurent, Philip.** Notes on the butterflies of Miami, Florida. *L.c.* 14, 1903, (296-297).

**Reading, J. H.** A collecting trip south. *L.c.* (116-118).

**Skinner, Henry.** A hesperid new to our fauna. [*Nisonioides brunnea* Herr Schaefer from Florida]. *L.c.* (110).

**Smyth, Ellison A., jun.** [*Nisonioides naevius* in South Carolina]. *L.c.* (333).

#### gi WESTERN UNITED STATES.

**Aldrich, J. M.** *Orneodes hexadactyla* [at Moscow, Idaho]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (156).

**Busck, August.** Notes on the *Cerostoma* group of *Yponomeutidae*, with descriptions of new North American

species [from Western United States]. New York, N.Y., J. Ent. Soc., **11**, 1903, (45-59).

Clarke, W. T. The potato worm in California (*Gelechia operculella*). Agric. Exp. Sta., California, Berkeley, Bull., No. **135**, 1901, (30, with 10 fig.). 23 cm.; [review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., **13**, 1902, 765-766).

Cockerell, Theodore I[r]u A[l]ison. The blackberry crown borer [*Bembris marginata*] in New Mexico. "Notes from the New Mexico Biological Station 3." Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (100-101).

— *Euhagenia* [*Euhagenia*] *nibraskae*, Hy. Edw. [at Los Vegas, N. M.]. l.c. (303); correction, *Ib.*, **14**, 1903, (29).

— *Aellopes fadus* var. *titan* Cram. l.c. **13**, 1902, (326).

Dyar, Harrison G[r]ay. List of Lepidoptera taken at Williams, Arizona, by Messrs. Schwarz and Barber. I. Papilionoidea, Sphingoidea, Bombycoidea, Tineoidea (in part). Washington, D.C., Proc. Ent. Soc., **5**, 1903, (223-232).

Grinnell, Fordyce, jun. Three undescribed Lepidoptera from southern California. [*Thecla spadix*, *Pamphila sabuleti*, var. *tecumseh* n. var., and *Anatolius regulus* n. sp.]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (10-11).

Hoink, C. L. [Lepidoptera of Meramec Highlands, Mo.]. l.c. (334-335).

Ottolengui, Rodrigues. A new *Saturnia* from North America. [Arizona]. l.c. (311-314).

Poling, Otho C. A new *Megathymus* from Arizona. l.c. **13**, 1902, (97-98, with pl.).

Rivers, J. J. Butterfly emigrants. Los Angeles, Bull., No. Cal. Acad. Sci., **1**, 1902, (90).

Simpson, C. B. Report upon an investigation of the codling moth [*Carpocapea pomonella*] in Idaho in 1900. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **30**, 1901, (51-75).

Skinner, H[enry]. A butterfly new to the United States. [*Myscelia skinneri* in

Dry cañon, Alamogordo, New Mexico]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (321).

Snow, F[rancis] H[untington]. List of Coleoptera and Lepidoptera collected in Hamilton, Morton and Clark counties, Kansas, 1902 and 1903. Lawrence, Kan. Univ. Sci. Bull., **2**, 1903, (191-208). Separate. 27.8 cm.

Snyder, A. J. A day's experiences. [Collecting butterflies in Colorado.] Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (50-54).

#### h CENTRAL AND SOUTH AMERICA AND WEST INDIES.

Barrett, O. W. Tropical butterflies. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (90).

Busck, August. A revision of the American moths of the family *Gelechiidae*, with descriptions of new species. Washington, D.C., Smithsonian Inst., Nation. Mus. Proc., **25**, 1903, (767-938, with pl.). Separate. 24.5 cm.

Dognin, P. Hétérocères nouveaux de l'Amérique du Sud. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (173-189); **46**, 1903, (226-233, 335-350, 473-480).

Druce, Herbert. Descriptions of some new species of Lepidoptera. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (196-203).

— Descriptions of some new species of Lepidoptera from tropical S. America, and one from N. Australia. l.c. **12**, 1903, (220-222).

Fruhstorfer, H. Neue *Caligo*-Formen (3 nn. subsp.). Soc. Entomol., Zürich, **18**, 1903, (145).

Godman, F. D. Notes on some Central and S. American *Erycinidae*, with descriptions of new species. London, Trans. Ent. Soc., **1903**, (529-548, pls. XX-XXIII).

Roeder, J. Neue *Caligo*-Arten. Soc. Entomol., Zürich, **18**, 1903, (145-147).

Schaus, William. New *Noctuidae* from tropical America. New York, N.Y., J. Ent. Soc., **11**, 1903, (230-236).

**ha MEXICO.**

**Smyth, Ellison A., jun.** *Morphothoosa* (sp. nov.). Description of a new variety of *Morpho polyphemus* Dhy. Hew. from Mexico. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (85-87, with pl.).

**hd GUIANA.**

**Poulton.** [Mullerian group, Rhopalocera from British Guiana]. London, Proc. Ent. Soc., **1903**, (54-56).

**he COLOMBIA; ECUADOR.**

**Haensch, Rich[ard].** Die Ithomiien (Neotropiden) meiner Ecuador-Reise. Mit Beschreibungen neuer Formen und biologischen Notizen. Berliner ent. Zs., **18**, 1903, (157-214, mit 1 Taf.).

**Roeder, J.** Zwei neue Morphiden. Soc. Entomol., Zürich, **17**, 1903, (153-154).

**hf PERU.**

**Lathy, P. L.** A new species of *Callithea* from Peru. Entomologist, London, **36**, 1903, (105, pl. II).

**hg BOLIVIA.**

**Weeks, A. G., jun.** New species of butterflies from Bolivia. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (104-108).

——— Bolivian Lepidoptera. [Progress of work]. l.c. (317).

——— Description of nine new Bolivian butterflies. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **27**, 1901, (353-360).

**hh BRAZIL.**

**Heron, F. A. and Hampson, Sir G. F.** On the Lepidoptera collected at Chapada, Matto Grosso, by Mr. A. Robert (Percy Sladen expedition to Central Brazil). London, Proc. Zool. Soc., **1903**, 2, (258-260).

[**Peters, H. T.**] Die Heterocerura-Raupen (und -Puppen) des H. T. Peters'schen Manuskriptwerkes: Biologische Beiträge zur brasilianischen Schmetterlings-Fauna. Neudamm (J. Neumann), (1898-) 1901, (12, mit 10 Taf.). 25 cm. Kart. 5 M.

**hi ARGENTINA.**

**Heylaerts, F. J. M.** Description d'une psychide inédite de la République Argentine. *Chalia kunklii* n. sp. Bruxelles, Ann. Soc. ent. Belgique, **48**, 1903, (97).

**Schrottky, C.** Beitrag zur Kenntniss der Syntomiden Argentinien. D. ent. Zs. Iris., Berlin, **15**, 1902, (133-136).

**hk CHILI.**

**Elwes, H. J.** The butterflies of Chile. London, Trans. Ent. Soc., **1903**, (263-301, pls. XII-XV).

**hm THE ANDES.**

**Thieme, Otto.** Zwei neue Satyriden aus der Cordillere von Südamerika. Berliner ent. Zs., **47**, 1902, [1903], (281-282).

**AUSTRALASIA.**

**Fruhstorfer, H.** Neue indo-australische Lepidopteren. D. ent. Zs. Iris., Berlin, **14**, (1901), 1902, (334-350).

——— Neue Papilioniden aus dem australischen Gebiet. l.c. 1903, (11-16).

**ia NEW GUINEA WITH ISLANDS FROM WALLACE'S LINE.**

**Bethune-Baker, G. T.** A new species of *Arhopala* from British New Guinea and Singapore. Ent. Mag., London, **39**, 1903, (217-218).

**Fruhstorfer, H.** Neue Papilioformen aus dem indo-australischen Gebiet. Soc. Entomol., Zürich, **17**, 1902, (57).

——— Neue Pieriden aus dem Indo-Australischen Gebiet. l.c. **18**, 1903, (17-18).

**Fruhstorfer, H.** *Ornithoptera paradi-  
sea* ab. *auriflua* n. subsp. l.c. (49).

—— Zwei neue Nymphaliden  
aus Neu-Guinea. l.c. (65).

—— Eine neue Nymphalide aus  
Neu-Guinea. D. ent. Zs. Iris, Berlin, **16**, 1903, (66-67).

**Warren, W.** New moths from British  
New Guinea. Nov. Zool., Tring, **10**,  
1903, (120-126).

—— New *Uraniidae*, *Drepanuli-  
dae* and *Geometridae* from British New  
Guinea. l.c. (343-413).

**Weymer, G.** Zwei neue Tagfalter aus  
Neuguinea. Ent. Zs., Guben, **16**, (1902/  
03), 1902, (5-6).

#### ic AUSTRALIA.

**Druce, H.** Descriptions of some new  
species of Lepidoptera from tropical S.  
America, and one from North Australia.  
Ann. Mag. Nat. Hist., London, (Ser. 7),  
**12**, 1903, (220-222).

**Lower, Oswald B.** Descriptions of  
new Australian Noctuidae, &c. Adelaide,  
S. Aust., Trans. R. Soc., **27**, 1903, (27-  
74).

—— Descriptions of new . . .  
Australian lepidoptera. l.c. (183-201).

—— New . . . [Australian  
lepidoptera]. l.c. (216-239).

**Meyrick, E.** A new Australian genus  
of *Gelechiidae*. Ent. Mag., London, **39**,  
1903, (291).

**Turner, A. Jefferis.** New Australian  
lepidoptera, with synonymic and other  
notes. Adelaide, S. Aust., Trans. R.  
Soc., **27**, 1903, (1-26).

—— Revision of Australian  
Lepidoptera. Sydney, N.S.W., Proc.  
Linn. Soc. N. S. Wales, **28**, 1903, (42-  
92).

**Waterhouse, G. A.** . . . Austra-  
lian *Hesperidae*. Vict. Nat., Melbourne,  
**20**, 1903, (52-57).

#### id QUEENSLAND.

**Lewis, R. T.** Note on some insects  
sent from Queensland by Mr. C. J.  
Pound, F.R.M.S. London, J. Quek.  
Microsc. Cl., **8**, 1903, (553-554).

**Rothschild, Hon. W.** Some new *Cos-  
sidae* from Queensland, bred by Mr.  
F. P. Dodd. Nov. Zool., Tring, **10**,  
1903, (306-308).

#### if VICTORIA.

**Best, D.** Excursion to Wandong  
[Victoria]. [Lepidoptera 5 species.]  
Vict. Nat., Melbourne, **20**, 1903, (103-  
104).

#### ik NEW ZEALAND.

**Philpott, A.** On some new species of  
Lepidoptera from Southland. Welling-  
ton, Trans. N. Zeal. Inst., **35**, 1903,  
(246-249).

#### n PACIFIC.

#### nf FIJI ISLANDS.

**Fruhstorfer, H.** Beitrag zur Kennt-  
niss der Lepidopteren der Viti-Inseln.  
Stettiner ent. Ztg., **63**, 1902, (350-359).

#### nh SOCIETY ISLANDS, ETC., ETC.

**Mengel, Levi W.** A new species of  
*Hypolimnas* from New Hebrides. Phila-  
delphia, Pa., Ent. News Acad. Nat. Sci.,  
**14**, 1903, (167-168, with pl.).

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### GENERAL.

**Barrett, F.** Further notes on South  
African Lepidoptera. Ent. Mag., Lon-  
don, **39**, 1903, (35-38, 76-83, 138-145).

**Bartel, M.** Lepidopteren des süd-  
lichen Urals, gesammelt von Herrn  
Julius Tief. D. ent. Zs. Iris, Berlin, **15**,  
(1902), 1903, (183-230).

**Best, D.** Lepidoptera 5 species from  
Wandong, Victoria. Vict. Nat., Mel-  
bourne, **20**, 1903, (103-104).

**Brecher.** Beobachtungen über den  
Frass des Kiefernspinners im Herbst  
1900 und Vorbeugung. D. Forstztg,  
Neudamm, **16**, 1901, (617-620).

**Brown.** Note sur quelques lépidoptères de nos environs [de Bordeaux]. Bordeaux, Actes soc. linn., **58**, 1903, (Proc.-verb., CCLVII-CCLVIII).

**Dixey, F. A. D.** On Lepidoptera from the White Nile, collected by Mr. W. L. S. Loat, F.Z.S., together with further notes on seasonal dimorphism in butterflies. London, Trans. Ent. Soc., **1903**, (141-163, pl. VII).

**Dupont, L.** Insectes du Jardin (Mont-Blanc). Elbeuf, Bul. soc. étud. sci. nat., **20**, 1901, [1902], (41).

**Dyar, H. G.** List of Lepidoptera taken at Williams, Arizona, by Messrs. Schwarz and Barber.—I. Papilionoidea, Sphingoidea, Bombycoidea, Tineoidea (in part). Washington, D.C., Proc. Ent. Soc., **5**, 1903, (223-232).

**Elwes, H. J.** On a collection of Lepidoptera from Arctic America. London, Trans. Ent. Soc., **1903**, (239-243, pl. IX).

**Fawcett, J. M.** Notes on the transformations of some South African Lepidoptera (continued from Vol. XV). London, Trans. Zool. Soc., **17**, 1903, (165-190, pls. VI-VIII).

**Fruhstorfer, H.** Beitrag zur Kenntniss der Lepidopteren der Viti-Inseln. Stettiner ent. Ztg., **63**, 1902, (350-359).

**Geest, W.** Neue Schmetterlings-Aberrationen. Allg. Zs. Ent., Neudamm, **8**, 1903, (301-313).

**Hampson, Sir G. F.** Lepidoptera II. Phalaenae. Nat. Hist. Sokotra, (321-338, pl. XX).

**Heron, F. A. and Hampson, Sir G. F.** On the Lepidoptera collected at Chapada, Matto Grosso, by Mr. A. Robert (Percy Sladen expedition to Central Brazil). London, Proc. Zool. Soc., **1903**, **2**, (258-260).

**Herr, O.** Lepidopteren-Ausbeute der Lena-Expedition von B. Poppius im Jahre, 1901. Helsingfors, Öfvers. F. Vet. Soc., **45**, [No. 15], 1902-1903, (1-22, mit 1 pl.).

**Krullikovskij, L.** Petites notices lépidoptérologiques VI. VII. (Russ.) Rev. Russ. Ent., Jaroslavl, **3**, 1903, (30-32, 177-182).

**Norman, A. M.** [Lepidoptera in:]. Notes on the Natural History of East Finmark (continued). Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (167-171).

**Philpott, A.** On some new species of Lepidoptera. Wellington, Trans. N. Zeal. Inst., **35**, 1903, (246-249).

**Poulton, E. S.** Experiments in 1893, 1894, and 1896 upon the colour relations between Lepidopterous larvae and their surroundings, and especially the effect of lichen covered bark upon *Odontopera bidentata*, *Gastropacha quereifolia*, etc. London, Trans. Ent. Soc., **1903**, (311-374, pls. XVI-XVIII).

**Rebel, H.** Lepidopteren aus Morea. Nachtrag. Berliner ent. Zs., **48**, 1903, (243-249).

**Röber, J.** Lepidopterologisches. Stettiner ent. Ztg., **64**, 1903, (337-358).

**Rondon, P.** Catalogue des lépidoptères des Pyrénées. Bordeaux, Actes soc. linn., (sér. 6, 7), **57**, 1902, (177-355).

**Rothschild, Hon. W. and Jordan, K.** Lepidoptera collected by Oscar Neumann in North-east Africa. Nov. Zool., Tring, **10**, 1903, (491-542).

**Sasaki, C.** Life-history of two leaf-miners of the fruit-trees. (Japanese) Dobuts. Z., Tokyo, **15**, 1903, (381-383).

**Sheldon, W. G.** Lepidoptera at Pont-du-Gard and Digne. Ent. Rec., London, **15**, 1903, (193-196).

**Skinner, H.** Lepidoptera of Beulah, New Mexico. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1902, (36-38).

**Stichel, H.** Kritische Bemerkungen über die Artberechtigung der Schmetterlinge. II. D. ent. Zs. Iris, Berlin, **15**, 1902, (50-95, mit 2 Taf.).

**Trost, A.** . . . Lepidopteren Fauna von Steiermark. . . . Graz, Mitt. Natw. Ver. Steierm., **1902**, 1903, (328-340).

**Weymer, G.** Die Lepidopteren der Kunene-Sambesi-Expedition. [In: Kunene-Sambesi-Expedition, hrsg. v. O. Warburg.] Berlin, 1903, (543-559).

## RHOPALOCERA.

### GENERAL.

Les plantes de France, leurs papillons et leurs chenilles (suite). Naturaliste, Paris, (sér. 2), **24**, 1902, (95).

**Comstock, J. and Comstock, H. A.** trip to Lake Josephine, Fla., [with list of *Rhopalocera* taken]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (75-77).

**Elwes, H. J.** The butterflies of Chile. London, Trans. Ent. Soc., **1903**, (263-301, pls. XII-XV).

**Lathy, P. L.** An account of a collection of *Rhopalocera* made on the Anambara creek in Nigeria, West Africa. *L.c.* (83-206, pl. VIII).

**Laurent, P.** Notes on the butterflies of Miami, Florida. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (296-297).

**Leslie, G. A. and Evans, W. H.** Notes on the butterflies of the families of *Nymphalidae*, *Lemoniidae* and *Papilionidae* found in Chitral. Bombay, J. Nat. Hist. Soc., **14**, 1903, (666-678).

**Ogilvie-Grant, W. R.** Lepidoptera. I. *Rhopalocera*. Nat. Hist. Sokotra, 295-318, pls. XVIII, XIX).

**Pagenstecher, A.** Tagfalter. (Wissenschaftl. Resultate der Reise Carlo Frhrn. v. Erlanger's durch Süd-Schöa, Galla u. Somaliländer.) Wiesbaden, Jahrb. Ver. Natk., **55**, 1902, Abt. II, (113-204, mit 1 Taf.).

**Sharpe, E. M.** The butterflies collected in Equatorial Africa by Captain Clement Sykes. Entomologist, London, **36**, 1903, (5-8, 36-40).

**Snyder, A. J.** A day's experiences. [Collecting butterflies in Colorado]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (50-54).

## NYMPHALIDAE.

### GENERAL.

**Aitken, E. H. and Comber, E.** List of butterflies of family *Nymphalidae* from Konkan. Bombay, J. Nat. Hist. Soc., **15**, 1903, (43-46).

**Dupont, L.** Les Argynnes de la Normandie. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (80-81).

**Dupuy, G.** Les Argynnes de la Charente, des Deux-Sèvres, de la Dordogne et de la Gironde. *L.c.* (196-198).

(n 2-9053)

**Fruhstorfer, H.** Neue Nymphaliden aus Ostasien. D. ent. Zs. Iris, Berlin, **16**, 1903, (22-42).

**Giard, A.** Les Argynnes de la France septentrionale. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (43-46).

——— L'albinisme partiel des Satyrides. [à propos de la Note de M. G. de Rocquigny-Adanson]. *L.c.* (103-104).

——— Variations du nombre et de la forme des ocelles chez les Satyrides. *L.c.* (133).

**Haensch, R.** Die Ithomiiden (Neotropiden) meiner Ecuador-Reise. Mit Beschreibungen neuer Formen und biologischen Notizen. Berliner ent. Zs., **48**, 1903, (157-214, mit 1 Taf.).

**Rocquigny-Adanson, G. de.** Les Argynnes du centre de la France. Feuilles jeunes natural., Paris, (sér. 4), **33**, 1903, (119-123).

**Siepl, P.** Satyrides atteints d'albinisme. (Liste supplémentaire.) *L.c.* (134).

**Thieme.** [Südafrikan. Satyriden.] Berliner ent. Zs., **48**, 1903, (31).

### SPECIAL.

*Acraea* nn. spp. Ostafrika. **Thurau, F.** Berliner ent. Zs., **48**, 1903, (132-133).

——— nn. varr. E. and C. Africa. **Thurau, F.** *L.c.* (303-306).

——— nn. spp. Afrika. **Weymer, G.** D. ent. Zs. Iris, Berlin, **16**, 1903, (221-225).

——— *igola*: *leonina* n. subsp. West Africa. **Bethune-Baker, G. T.** Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (325).

*Actinote* nn. spp. South America. **Druce, H.** *L.c.* (220).

*Adelpha* nn. spp. Bolivia. **Weeks, A. G., jun.** Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **27**, 1901, (353-360).

*Aemona lena* Atk. ♀. **Fruhstorfer.** Berliner ent. Zs., **48**, 1903, (18).



*Agrias amydonius* St McGr., eine neue Lokalform. **Fruhstorfer**, H. D. ent. Zs. Iris, Berlin, **14**, (1901), 1902, (327-328).

———— *claudia* nn. subsp. **Fruhstorfer**, H. Soc. Entomol., Zürich, **17**, 1902, (81).

———— *ab. testa*. **Fruhstorfer**, H. D. ent. Zs. Iris, Berlin, **14**, (1901), 1902, (351-352).

———— *narcissus* St McGr. ♂ oder n. subsp. **Fruhstorfer**, H. l.e. **15**, 1902, (179, mit 1 Taf.).

*Amauris* nn. subsp. North-east Africa. **Rothschild**, *Hon. W. and Jordan*, K. Nov. Zool., Tring, **10**, 1903, (503-504).

———— *echeria* var. *oscarus* n. var. Uganda. **Thurau**, F. Berliner ent. Zs., **48**, 1903, (301-302).

———— *hecatoides* n. sp. Congo. **Aurivillius**, C. Entomol. Tidskr., Stockholm, **22**, 1901, (113-128, with pl.).

*Antanartia* n. gen., *A. schaeneia*: *diluta* n. subsp. North-east Africa. **Rothschild**, *Hon. W. and Jordan*, K. Nov. Zool., Tring, **10**, 1903, (508-509).

*Apatura ilia* Schiff., apparition tardive. **Giard**, A. Feuille jeune natural., Paris, (sér. 4), **33**, 1903, (50-51).

———— *ir's*, eine bemerkenswerte Form. **Schultz**, O. Soc. Entomol., Zürich, **17**, 1903, (161).

*Irgynnis*, notes de géographie zoologique. **B.** Feuille jeunes natural., Paris, (sér. 4), **33**, 1902, (9).

———— *Maroc*. **Vaucher**, A. l.e. (34).

———— *lathonia*, life - history. **Frohawke**, F. W. Entomologist, London, **36**, 1903, (300-304).

———— *pandora* Schiff. **Rocquigny-Adanson**, G. de. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (169-170).

———— *paphia*, Biographie. **Evers**, J. Insektenbörse, Leipzig, **20**, 1903, (109).

———— *Haneld*. Berliner ent. Zs., **48**, 1903, (29)).

———— *Tw'ter*, Hermaphroditismus. **Kabls**. Ent. Zs., Guben, **16**, (1902/03), 1902, (42).

*Asterope* nn. spp. Africa. **Rothschild**, *Hon. W. and Jordan*, K. Nov. Zool., Tring, **10**, 1903, (529-535).

*Atella* nn. subsp. North-east Africa. **Rothschild**, *Hon. W. and Jordan*, K. l.e. (505-507).

———— *ceylonica* n. sp. Ceylon. **Manders**, N. Bombay, J. Nat. Hist. Soc., **14**, 1903, (716).

*Aterica galena: incisa* n. subsp. North-east Africa. **Rothschild**, *Hon. W. and Jordan*, K. Nov. Zool., Tring, **10**, 1903, (537-538).

*Athyma perinus: perinus* n. subsp. **Fruhstorfer**, H. Berliner ent. Zs., **48**, 1903, (95).

*Azania* n. subgen. (*Cyrestis*). **Martin**, L. D. ent. Zs. Iris, Berlin, **16**, 1903, (71-169).

*Brenthis*, synopsis of North American species. **Dyar**, H. G. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (130-131).

*Byblia ilithyia*, larva, pupa. **Fawcett**, J. M. London. Trans. Zool. Soc., **17**, 1903, (166, pl. VI, figs. 5-8).

*Caerois resperilio* n. sp. Südamerika. **Thieme**, O. Berliner ent. Zs., **47**, 1902, [1903], (281-282).

*Caligo* nn. spp. **Stichel**, H. Insektenbörse, Leipzig, **20**, 1903, (389).

———— nn. subsp. **Fruhstorfer**, H. Soc. Entomol., Zürich, **18**, 1903, (145); Insektenbörse, Leipzig, **26**, 1903, (413).

———— nn. subsp. **Reeber**, J. Soc. Entomol., Zürich, **18**, 1903, (145-147).

*Calliploea adyte: natunensis* n. subsp. **Fruhstorfer**, H. D. ent. Zs. Iris, Berlin, **14**, (1901), 1902, (336).

*Callithea adamsi* n. sp. Peru. **Lathy**, P. J. Entomologist, London, **36**, 1903, (105, pl. II).

———— *lugens* n. sp. Peru. **Druce**, H. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (221).

*Callotera radiosa* n. sp. Ecuador. **Haensch**, R. Berliner ent. Zs., **48**, 1903, (187).

*Catacroptera eloanthe*, wet and dry phases. **Rothschild**, W. and *Jordan*, K. Nov. Zool., Tring, **10**, 1903, (520).

*Ceratinia* n. spp. Ecuador. **Haensch**, R. Berliner ent. Zs., **48**, 1903, (169-171).

*Cethosia cydippe* nn. subsp. **Fruhstorfer**, H. D. ent. Zs. Iris, Berlin, **14**, (1901), 1902, (329-330, 339).

————— : *obiana* n. subsp. Obi. **Fruhstorfer**, H. Insektenbörse, Leipzig, **20**, 1903, (349-357).

*Charaxes* nn. subsp. Comoro Is. and Borneo. **Rothschild**, *Hon. W. Nov. Zool.*, Tring, **10**, 1903, (310).

————— nn. subsp. North-east Africa. **Rothschild**, *Hon. W. and Jordan*, K. l.c. (539-540).

————— *acuminatus* n. sp. Ostafrika. **Thurau**, F. Berliner ent. Zs., **48**, 1903, (117-144).

————— *janius*, histoire naturelle. **Siépl**, P. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (56-64, av. 1 pl.).

————— *orilus* : *kiesericus* n. subsp. **Fruhstorfer**, H. Berliner ent. Zs., **48**, 1902, (95).

————— *varanes*, larva and pupa. **Fawcett**, J. M. London, Trans. Zool. Soc., **17**, 1903, (168, pl. VI, figs. 16, 16a).

*Chionoba*, North American species. **Dyar**, H. G. Washington, D C., Proc. Ent. Soc., **5**, 1902, (42).

*Coelites nothis* : *sylvorum* n. subsp. **Fruhstorfer**, H. D. ent. Zs. Iris, Berlin, **14**, (1901), 1902, (275).

*Coenonympha hero* L. **Glard**, A. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (203).

————— **Rocquigny-Adanson**, G. de. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (169).

*Cosmosatyrus nilesi* n. sp. Bolivia. **Weeks**, A. G., jun. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (104-108).

*Crastia* nn. spp. Tonkin. **Swinhoe**, C. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (499).

*Crenis natalensis*, *C. boisduvali*, larva and pupa. **Fawcett**, J. M. London, Trans. Zool. Soc., **17**, 1903, (167, pl. VI, figs. 9-15).

*Cupha erymanthis* : *kangeana* n. subsp. **Fruhstorfer**, H. Berliner ent. Zs., **48**, 1903, (96).

(N 2-9053)

*Cymothoe lurida* : *sublurida* n. subsp. Afrika. **Fruhstorfer**, H. Stettiner ent. Ztg, **64**, 1903, (359).

*Cynthia arsinoe* nn. subsp. **Fruhstorfer**, H. D. ent. Zs. Iris, Berlin, **14**, (1901), 1902, (329-330); **16**, 1903, (22-44).

*Cyrestis*, Revision der bekannten Arten unter Berücksichtigung der neuen Formen. **Martin**, L. l.c. **16**, 1903, (71-169).

————— *coeles* : *coeleoides* n. subsp. **Fruhstorfer**, H. l.c. **14**, (1901), 1902, (274).

*Cystineura cana* (*C. floridana* Strecker). **Mengel**, L. W. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (159-160).

*Daedalma bronza* n. sp. Bolivia. **Weeks**, A. G., jun. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **27**, 1901, (353-360).

*Dichorragia nesimachus* nn. subsp. Ostasien. **Fruhstorfer**, H. D. ent. Zs. Iris, Berlin, **16**, 1903, (24).

*Diestogyna* nn. spp. Congr. **Aurivillius**, C. Entomol. Tidskr., Stockholm, **22**, 1901, (113-128).

*Dircenna* nn. spp. Ecuador. **Haensch**, R. Berliner ent. Zs., **48**, 1903, (178-179).

*Discophora bangkaiensis* n. subsp. **Fruhstorfer**, H. Soc. Entomol., Zürich, **17**, 1903, (82).

————— *muscina* n. sp. **Stichel**, [H.]. Berliner ent. Zs., **48**, 1903, ((4)-(5)).

*Dismenetis* (*Hypoleria*) n. gen., *D. heuritsoni*, *D. hermana* nn. spp. Ecuador. **Haensch**, R. l.c. (157-214).

*Doleschallia* nn. subsp. **Fruhstorfer**, H. Soc. Entomol., Zürich, **18**, 1903, (65).

————— *bisaltidae* nn. subsp. Ostasien. **Fruhstorfer**, H. D. ent. Zs. Iris, Berlin, **16**, 1903, (29-42).

*Elina calceitii* n. sp. Chile. **Elwes**, H. J. London, Trans. Ent. Soc., **1903**, (275, pl. XIV).

*Elymnias* nn. subsp. **Fruhstorfer**, H. Soc. Entomol., Zürich, **16**, 1902, (169-170).

————— nn. subsp. **Fruhstorfer**, H. D. ent. Zs. Iris, Berlin, **14**, (1901), 1902, (271-273); **15**, (1902), 1903, (306-315); **16**, 1903, (17-15).

*Elymnias oberthureri* n. subsp. **Fruhstorfer**, H. Soc. Entomol., Zürich, **17**, 1902, (82).

*Epinephele hyperanthus* L. **Rooquigny-Adanson**, G. de. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (108).

\_\_\_\_\_ *janira* L. **Braccasat**, M. l.c. (64).

\_\_\_\_\_ **Rooquigny-Adanson**, G. de. l.c. 1902, (84-85, 205).

\_\_\_\_\_ *jurtina*, Anzahl der Augen auf der Unterseite der Hinterflügel. **Bachmetjew**, P. Allg. Zs. Ent., Neudamm, **8**, 1903, (253-256).

*Episcada praetigiosa* n. sp. Ecuador. **Haensch**, R. Berliner ent. Zs., **48**, 1903, (157-214).

*Erebia*, France. **Chrétien**, P. Naturaliste, Paris, (sér. 2), **25**, 1903, (71-72).

\_\_\_\_\_ Synopsis of North American species. **Dyar**, H. G. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (129-130).

\_\_\_\_\_ Die in den Karpathen einheimischen Arten und deren Beziehungen zur pleistocänen Fauna Mitteleuropas. **Hormusaki**, C. Freiherr von. D. ent. Zs. Iris, Berlin, **14**, (1901), 1902, (353-380).

\_\_\_\_\_ *euryale*, Flügellänge. **Bachmetjew**, P. Insektenbörse, Leipzig, **20**, 1903, (364-365).

\_\_\_\_\_ *glacialis* Esper., Ei. **Gillmer**, M. Soc. Entomol., Zürich, **18**, 1903, (74).

*Ergolis phemonoë* n. sp., *E. celcbensis*: *dongalae* n. subsp. Ostasien. **Fruhstorfer**, H. D. ent. Zs. Iris, Berlin, **16**, 1903, (22-42).

*Erites madura*: *ines* n. subsp. Borneo. **Fruhstorfer**, H. l.c. (20-21).

*Eueides* nn. varr. et nn. subspp. **Stichel**, H. Berliner ent. Zs., **48**, 1903, (1-34).

*Eulep's hebe*: *kargeanus* n. subsp. **Fruhstorfer**, H. l.c. (94).

\_\_\_\_\_ *pyrrhus* nn. sulsp. **Fruhstorfer**, H. l.c. (93-94).

\_\_\_\_\_ *scatubela* n. subsp. **Rothschild**, Hon. W. Nov. Zool., Tring, **10**, 1903, (311).

*Euphaedra* nn. spp. West Africa, **Lathy**, P. L. London, Trans. Ent. Soc., **1903**, (190-191, pl. VIII).

*Euphaedra ellenbecki* n. sp. Africa. **Pagenstecher**, A. Wiesbaden, Ver. Natk., **55**, 1902, Abt. II, (113-204).

\_\_\_\_\_ *losinga* var. *inaequabilis* n. var. **Thurau**, F. Berliner ent. Zs., **48**, 1903, (310).

\_\_\_\_\_ *medon* nn. varr. **Thurau**, F. l.c. (307-310).

*Euptychia luttela* u. sp. Bolivia. **Weeks**, A. G., jun. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **27**, 1901, (353-360).

*Euripus consimilis*: *eurinus* n. subsp. ab. *amala* ab. *eunta* ab. *diocletiana* ab. *gudila* ab. *triquilla*; *E. halitherses*: *maistor* n. subsp. **Fruhstorfer**, H. Ostasien. D. ent. Zs. Iris, Berlin, **16**, 1903, (26-28).

*Euryphene ikelemba* n. sp. Congo. **Aurivillius**, C. Entomol. Tidskr., Stockholm, **22**, 1901, (113-128).

*Eurytela hiarbas* nn. subspp. North-east Africa. **Rothschild**, Hon. W. and **Jordan**, K. Nov. Zool., Tring, **10**, 1903, (525).

\_\_\_\_\_ larva and pupa. **Fawcett**, J. M. London, Trans. Zool. Soc., **17**, 1903, (166, pl. VI, figs. 1-4).

*Euxanthe ansorgei* n. sp. Uganda. **Rothschild**, Hon. W. and **Jordan**, K. Nov. Zool., Tring, **10**, 1903, (312).

*Helcyra hemina*: *masinia* n. subsp. Ostasien. **Fruhstorfer**, H. D. ent. Zs. Iris, Berlin, **16**, 1903, (37).

*Heliconius*. **Riffarth**, H. Berliner ent. Zs., **47**, 1902, [1903], (157-166).

\_\_\_\_\_ *virgata* n. sp. **Stichel**, [H.]. l.c. **48**, 1903, (14).

*Henotenia ubenica* n. sp. Ostafrika. **Thurau**, F. l.c. (121).

*Hestia*, Revision der Gattung. **Fruhstorfer**, H. D. ent. Zs. Iris, Berlin, **16**, 1903, (51-65).

*Heterosais pallidula* n. sp. Ecuador. **Haensch**, R. Berliner ent. Zs., **48**, 1903, (212).

*Hyantis hageni* n. sp. **Röber**, J. Stettiner ent. Ztg., **64**, 1903, (337-353).

*Hymenitis* nn. spp. Ecuador. **Haensch**, R. Berliner ent. Zs., **48**, 1903, (210-211).

*Hypanartia splendida* n. sp. Peru. **Rothschild**, Hon. W. Nov. Zool., Tring, **10**, 1903, (309-310).

*Hypocysta leucomelas* n. sp. British New Guinea. **Rothschild**, Hon. W. l.c. (309).

*Hypoleria* nn. spp. Ecuador. **Haensch**, R. Berliner ent. Zs., **48**, 1903, (204).

*Hypolimnas antilope*: *mela* n. subsp. **Fruhstorfer**, H. l.c. (75).

———— *alimena* nn. subsp. **Fruhstorfer**, H. Berliner ent. Zs., **48**, 1903, (73-112).

———— *aurifascia* n. sp. New Hebrides. **Mengel**, L. W. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (167-168, with pl.).

———— *deois*: *divina* n. subsp. Neu-Guinea. **Fruhstorfer**, H. D. ent. Zs. Iris, Berlin, **16**, 1903, (66-67).

———— *salmacis*: *platydema* n. subsp. North-east Africa. **Rothschild**, Hon. W. and **Jordan**, K. Nov. Zool., Tring, **10**, 1903, (524-525).

*Hyposcada ida* n. sp. Ecuador. **Haensch**, R. Berliner ent. Zs., **48**, 1903, (188).

*Ideopsis chloris*: *obiana* n. subsp. Obi. **Fruhstorfer**, H. Insektenbörse, Leipzig, **20**, 1903, (349, 357).

*Isamia* nn. subsp. **Fruhstorfer**, H. Berliner ent. Zs., **48**, 1903, (87, 91).

*Isodema adelma* var. *latifasciata* n. var. China and Thibet. **Lathy**, P. I. Entomologist, London, **36**, 1903, (12).

———— *pomponia* n. sp. **Fruhstorfer**, H. D. ent. Zs. Iris, Berlin, **14**, (1901), 1902, (267).

*Ithomia* nn. spp. Ecuador. **Haensch**, R. Berliner ent. Zs., **48**, 1903, (182-184).

———— *gardneri* n. sp. Bolivia. **Weeks**, A. G., jun. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **17**, 1901, (353-360).

*Lasiophila piscina* n. sp. Südamerika. **Thieme**, O. Berliner ent. Zs., **47**, 1902, [1903], (281-282).

*Lebadea martha* nn. subsp. **Fruhstorfer**, H. D. ent. Zs. Iris, Berlin, **14**, (1901), 1902, (337-338).

*Lethe baucis*: *philemon* n. subsp. **Fruhstorfer**, H. l.c. (275).

*Leucosticha* n. nom. North-east Africa. **Rothschild**, Hon. W. and **Jordan**, K. Nov. Zool., Tring, **10**, 1903, (533).

*Leucolhyris* nn. spp. Ecuador. **Haensch**, R. Berliner ent. Zs., **48**, 1903, (190-195).

*Limnitis*. **Mittis**. Wien, JahrBer. Entom. Ver., **11**, (1900), 1901, (113-115, mit 1 Taf.).

———— *daraza*: *theoda* n. subsp. Ostasien. **Fruhstorfer**, H. D. ent. Zs. Iris, Berlin, **16**, 1903, (22-23).

———— *sibylla* L., apparition tardive. **Giard**, A. Feuille jeune natural., Paris, (sér. 4), **33**, 1903, (50-51).

———— *ursula* und *L. arthemis*, Bermerkungen. **Rothke**, M. Insektenbörse, Leipzig, **20**, 1903, (116).

*Macroploea phaenareta*: *irma* n. subsp. Obi. **Fruhstorfer**, H. l.c. (349-357).

*Melitaea*. **Mittis**. Wien, JahrBer. Entom. Ver., **11**, (1900), 1901, (113-115, mit 1 Taf.).

———— *athalia* ab. **Bode**. Berliner ent. Zs., **48**, 1903, (25).

———— *aurinia*, some British forms. **Freke**, P. E. Entomologist, London, **36**, 1903, (86-89, 108-112).

———— *damoetas* n. sp. **Skinner**, H. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (304-305).

———— *didyma*, aberration. **Rowland-Brown**, H. Entomologist, London, **36**, 1903, (153-154, with fig.).

———— *gabbi*, chrysalis. **Minot**, G. R. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (158).

———— *materna* Hb. var. *urbani*. **Hirschke**, H. Wien, JahrBer. Entom. Ver., **11**, (1900), 1901, (85, mit 1 Taf.).

———— *wolfensbergeri*. **Thieme**. Berliner ent. Zs., **48**, 1903, ((20-22)).

———— *streckeri* n. sp. **Ellsworth**, A. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (103-104).

*Miraleria* (~ *Illyperia*) n. gen. Ecuador. **Haensch**, R. Berliner ent. Zs., **48**, 1903, (211).

*Morphindra* n. gen. **Röber**, J. Stettiner ent. Ztg., **64**, 1903, (337).

*Morpho* nn. spp. **Röber, J.** l.c. (348-355).

———— *fruhstorfi* n. sp. Ecuador. **Röber, J.** Soc. Entomol., Zürich, **17**, 1903, (154).

———— *thoosa* n. sp. Mexico. **Smyth, E. A., jun.** Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (85-87, with pl.).

*Mycalesis* nn. spp. Congo, Mashuna Land. **Aurivillius, C.** Entomol. Tidskr., Stockholm, **22**, 1901, (113-128).

———— *vicaria* n. sp. Ostafrika. **Thurau, F.** Berliner ent. Zs., **48**, 1903, (117-144, mit 1 Taf.).

*Myscelia skinneri* in New Mexico. **Skinner, H.** Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (321).

*Napeogenes* nn. spp. Ecuador. **Haensch, R.** Berliner ent. Zs., **48**, 1903, (174-176).

*Nectaria*, Revision der Gattung. **Fruhstorfer, H.** D. ent. Zs. Iris, Berlin, **16**, 1903, (51-65).

———— *idea*: *rosseleri* nn. subsp. **Fruhstorfer, H.** Soc. Entomol., Zürich, **18**, 1903, (73).

*Neocoenyra* nn. spp. Ostafrika. **Thurau, F.** Berliner ent. Zs., **48**, 1903, (126-128).

*Neomoenes inornata* n. sp. Chili. **Elwes, H. J.** London, Trans. Ent. Soc., **1903**, (278-279, pl. XIV).

*Neptidopsis fulgurata*: *platyptera* n. subsp. German East Africa. **Rothschild, Hon. W.** and **Jordan, K.** Nov. Zool., Tring, **10**, 1903, (526).

*Neptis nemetes*: *obtusata* n. subsp. North-East Africa. **Rothschild, Hon. W.** and **Jordan, R.** l.c. (538).

*Nora ramada*: *suluana* n. subsp. **Fruhstorfer, H.** Soc. Entomol., Zürich, **17**, 1902, (82).

*Oeneis jutta* Hb. im Zehlau-Bruch, Ostpreussen. **Hanfeld.** Berliner ent. Zs., **48**, 1903, (12).

*Parantica cleona*: *eucleona* n. subsp. Obi. **Fruhstorfer, H.** Insektenbörse, Leipzig, **20**, 1903, (349-357).

*Pararge heira*, Abart. **Schmidt, J.** Ent. Zs., Guben, **16**, (1902/03), 1903, (89-90).

*Parhestina mena*: *subdecorata* n. subsp. Ostasien. **Fruhstorfer, H.** D. ent. Zs. Iris, Berlin, **16**, 1903, (25).

*Penthema binghami*: *annamitica* n. subsp. **Fruhstorfer, H.** l.c. **14**, (1901), 1902, (265-267).

*Phyciodes northbrunii* n. sp. Bolivia. **Weeks, A. G., jun.** Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **27**, 1901, (353-360).

*Plusia gamma.* **Adkin, R. E.** Entomologist, London, **36**, 1903, (274-276).

*Precis* nn. subsp. North-East Africa. **Rothschild, Hon. W.** and **Jordan, K.** Nov. Zool., Tring, **10**, 1903, (513, 515, 518-519).

———— *adulatrix* n. subsp. **Fruhstorfer, H.** D. ent. Zs. Iris, Berlin, **15**, (1902), 1903, (306-315).

———— *nobilitata* n. sp. Ostafrika. **Thurau, F.** Berliner ent. Zs., **48**, 1903, (117-144).

———— *octavia* u. *P. amestris*. **Rey.** l.c. ((4)).

*Prothoë francki*: *vilma* n. subsp. **Fruhstorfer, H.** D. ent. Zs. Iris, Berlin, **14**, (1901), 1902, (340).

*Pseudacraea karschi* n. sp. Afrika. **Fruhstorfer, H.** l.c. **16**, 1903, (9-10).

———— *künuzi* Dwtz, ab. *neumannii* n. Uganda. **Thurau, F.** Berliner ent. Zs., **48**, 1903, (306).

*Pseudoscada subtilis* n. sp. Ecuador. **Haensch, R.** l.c. (203).

*Pteronymia* nn. spp. Ecuador. **Haensch, R.** l.c. (197-201).

*Pyrameis cardui.* **Adkin, R. E.** Entomologist, London, **36**, 1903, (274-276).

*Saletara panda*: *engania* n. subsp. **Fruhstorfer, H.** Soc. Entomol., Zürich, **18**, 1903, (124-125).

*Salpinx miraculosa* n. sp., *S. leucostictos* n. subsp. **Fruhstorfer, H.** D. ent. Zs. Iris, Berlin, **14**, (1901), 1902, (334-336).

*Selenophanes supremus* var. *ditatus* Thiem. **Thieme.** Berliner ent. Zs., **48**, 1903, ((12-13)).

*Stichophthalma fruhstorferi* n. sp. **Röber, J.** Soc. Entomol., Zürich, **17**, 1903, (153).

*Stictoploea rogeri* nn. subsp. **Fruhstorfer, H.** l.c. 1902, (81).

*Sykophages* n. subgen. (*Cyrestis*).  
**Martin**, L. D. ent. Zs. Iris, Berlin, **16**, 1903, (81).

*Symbrent'ia florida* n. sp. Amboina.  
**Swinhoe**, C. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (500).

*Tenaris* nn. subsp. **Fruhstorfer**, H. D. ent. Zs. Iris, Berlin, **14**, (1901), 1902, (329-330).

———— *diana*: *diadema* n. subsp. Obi. **Fruhstorfer**, H. Insektenbörse, Leipzig, **20**, 1903, (349-357).

———— *domitilla*: *agrippa* n. subsp. **Fruhstorfer**, H. D. ent. Zs. Iris, Berlin, **15**, (1902), 1903, (306-315).

*Terinos wahnesi* n. sp. New Guinea. **Heller**, K. M. l.c. (127-132, mit 1 Taf.).

*Tithorea anachoreta* n. sp. Chamchamayo. **Thieme**, O. Berliner ent. Zs., **47**, 1902, (1903), (282).

*Vanessa l-album* Esp. ab. *chelone* n. ab. **Schultz**, O. D. ent. Zs. Iris, Berlin, **15**, (1902), 1903, (324-325).

———— *antiopa*. **Rocquigny-Adanson**, G. de. Feuille Jeunes natural., Paris, (sér. 4), **33**, 1903, (151).

———— nn. varr. **Fischer**, E. Soc. Entomol., Zürich, **17**, 1902, (49-50).

———— life history. **Frohawke**, F. W. Entomologist, London, **36**, 1903 (2-5).

———— *cardui* and other insects at the Kentish Knock lightship. **Clarke**, W. E. Ent. Mag., London, **39**, 1903, (289-290).

———— *milberti*. Rhode Island. **Billson**, J. E. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (57).

———— *polychloros* (?), eine albinotische Form. **Ruhe**, H. Insektenbörse, Leipzig, **20**, 1903, (205).

———— *xanthomelas*, eine Varietät, und Bemerkungen über Eigenschaften und Verwandtschaft der Vanessen. **Fischer**, E. Ent. Zs., Guben, **16**, (1902, 03), 1902, (57-58, 61, 69-70).

## ERYCINIDAE.

### GENERAL.

**Aitken**, E. H. and **Comber**, E. List of butterflies of family *Lemoniidae*, from Konkan. Bombay, J. Nat. Hist. Soc., **15**, 1903, (47-50).

**Godman**, F. D. Notes on some Central and S. American *Erycinidae*, with descriptions of new species. London, Trans. Ent. Soc., **1903**, (529-548, pl. XX-XXIII).

### SPECIAL.

*Abisara* nn. spp. Indochine. **Fruhstorfer**, H. Berliner ent. Zs., **48**, 1903, (285-286).

———— *abbuna* n. sp. New-Guinea. **Heller**, K. M. D. ent. Zs. Iris, Berlin, **15**, 1902, (127-132).

———— *huntei* n. sp. British New Guinea. **Sharp**, D. Entomologist, London, **36**, 1903, (310).

*Ana'ole modesta* n. sp. Paraguay. **Mengel**, L. W. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (176-178, with 1 pl.).

*Anteros carus* n. sp. S. America. **Godman**, F. D. London, Trans. Ent. Soc., **1903**, (535-536, pl. XXI).

*Apodemia ochracea* n. sp. Paraguay. **Mengel**, L. W. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (176-178, with 1 pl.).

*Aricoris* nn. spp. America. **Godman**, F. D. London, Trans. Ent. Soc., **1903**, (546-548, pl. XXIII).

*Baetis bifasciata* n. sp. Paraguay. **Mengel**, L. W. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (176-178, with 1 pl.).

*Caria* nn. spp. S. America. **Godman**, F. D. London, Trans. Ent. Soc., **1903**, (538-539, pl. XXI).

*Chamaelimnas pansa* n. sp. Brazil. **Godman**, F. D. l.c. (534, pl. XX).

*Charis arcuata* n. sp. Colombia. **Godman**, F. D. l.c. (539, pl. XXII).

*Cremna malis* n. sp. **Godman**, F. D. l.c. (530-531, pl. XX).

*Cricosoma irroratum* n. sp. British Guinea. **Godman**, F. D. l.c. (540).

*Ematurgina* n. gen., *E. mabildei* n. sp. **Röber**, J. Stettiner ent. Ztg., **64**, 1903, (337-358).

*Emesis eurydice* n. sp. Ecuador. **Godman**, F. D. London, Trans. Ent. Soc., **1903**, (536, pl. XXI).

*Esthemopheles* n. gen., *E. lamprolenis* n. sp. **Röber**, J. Stettiner ent. Ztg., **64**, 1903, (344).

*Eunica mabildei* n. sp. **Röber** J. l.c. (346).

*Eurygona* nn. spp. America. **Godman**, F. D. London, Trans. Ent. Soc., **1903**, (531-533).

*Hyphilaria orsedice* n. sp. South America. **Godman**, F. D. l.c. (531, pl. XX).

*Hyporion* n. gen. **Röber**, J. Stettiner ent. Ztg., **64**, 1903, (357).

*Lasaea* nn. spp. Bolivia and Paraguay. **Godman**, F. D. London, Trans. Ent. Soc., **1903**, (541, pl. XXII).

*Lemonia* nn. spp. Palestine. **Püngeler**, R. D. ent. Zs. Iris, Berlin, **15**, 1902, (143-146).

*Lemonias* nn. spp. S. America. **Godman**, F. D. London, Trans. Ent. Soc., **1903**, (542-545, pls. XXII-XXIII).

*Libythea cellis*, apparition tardive. **Sépl**, P. Feuille jeunes natural., Paris, (sér. 4), **33**, 1902, (34).

—— *verneri* n. subsp. **Fruhstorfer**, H. Berliner ent. Zs., **48**, 1903, (112).

*Mesene* nn. spp. America. **Godman**, F. D. London, Trans. Ent. Soc., **1903**, (540-541, pl. XXII).

*Mesenois pulchella* n. sp. Amazons. **Godman**, F. D. l.c. (533-534, pl. XX).

*Mesosemia* nn. spp. **Godman**, F. D. l.c. (529-530, pl. XX).

—— *chalybaea* n. sp. **Röber**, J. Stettiner ent. Ztg., **64**, 1903, (356).

*Metacharis indissimilis* n. sp. Bolivia. **Weekes**, A. G. jun. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **27**, 1901, (353-360).

*Monethe molione* n. sp. Peru. **Godman**, F. D. London, Trans. Ent. Soc., **1903**, (539, pl. XXII).

*Necyria gerhardi* n. sp. Peru. **Mengel**, L. W. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (176-178, with 1 pl.).

*Nymphidium grande* n. sp. Colombia. **Godman**, F. D. London, Trans. Ent. Soc., **1903**, (546, pl. XXIII).

*Polycaena*, Flügelbildung. **Grote**, A. Insektenbörse, Leipzig, **20**, 1903, (107-108).

*Riudina* (?) nn. spp. S. America. **Godman**, F. D. London, Trans. Ent. Soc., **1903**, (535, pl. XXI).

*Siseme pedias* n. sp. **Godman**, F. D. l.c. (531, pl. XXI).

*Symmachia* nn. spp. S. America. **Godman**, F. D. l.c. (537-538, pl. XXI).

*Taxila dora* n. sp. Indochine. **Fruhstorfer**, H. Berliner ent. Zs., **48**, 1903, (274-296).

## LYCAENIDAE.

### GENERAL.

**Bethune-Baker**, C. T. A revision of the Amblopodia group of butterflies of the family *Lycaenidae*. London, Trans. Zool. Soc., **18**, 1903, (1-164, pls. I-V).

**Courvoisier**, L. G. Ueber Aberrationen der Lycaeniden. Schaffhausen, Mitt. Schweiz. Entomol. Ges., **11**, 1903, (18-25, av. 1 pl.).

### SPECIAL.

*Amblypodia annecta: anettina* n. subsp. Obi. **Fruhstorfer**, H. Insektenbörse, Leipzig, **20**, 1903, (349-357).

*Aphnaeus brahami* n. sp. Nigeria. **Lathy**, London, Trans. Ent. Soc., **1903**, (199, pl. VIII, fig. 10).

*Arhopala* nn. spp. **Bethune-Baker**, G. T. London, Trans. Zool. Soc., **17**, 1903, (38-148).

—— nn. spp. Singapore and British New Guinea. **Bethune-Baker**, G. T. Ent. Mag., London, **39**, 1903, (217-218).

*Aziocernes argentic-maculata* n. sp. Africa. **Pagenstecher**, A. Wiesbaden, Jahrb. Ver. Natk., **55**, 1902, Abt. II, (113-204).

—— *baumi* n. sp. **Weymer**, G. Die Lepidopteren der Kuene-Sambesi-Expedition. Berlin, 1903, (543-559).

*Callophrys (Thecla) rubi* (Linn.) in Fife. **Brown**, H. H. Ann. Nat. Hist., Edinburgh, **1903**, (187).

*Chrysophanus dispar.*, historical notes.  
**Dale**, C. W. Ent. Mag., London, **39**,  
1903, (147-148).

———— *ochimus* H. S. var *hyrcana*.  
**Neuburger**, W. Soc. Entomol., Zürich,  
**18**, 1903, (59).

*Deudorix caliginosa* n. sp. West  
Africa. **Lathy**, P. L. London, Trans.  
Ent. Soc., **1903**, (197, pl. VIII).

———— *catori* n. sp. West Africa.  
**Bethune-Baker**, G. T. Ann. Mag. Nat.  
Hist., London, (Ser. 7), **12**, 1903, (331).

*Epamera mirabilis* n. sp. West  
Africa. **Druce**, H. H. C. J. Lc. **11**,  
(71).

*Epitola* nn. spp. West Africa.  
**Bethune-Baker**, G. T. Lc. **12**, (329-  
331).

———— *gordoni* n. sp. West  
Africa. **Druce**, H. H. C. J. Lc. **11**,  
(70-71).

*Eumaeus debora*. **Murillo**, L. Phila-  
delphia, Pa., Ent. News Acad. Nat. Sci.,  
**13**, 1902, (35-38).

*Jolaus adamsi* n. sp. West Africa.  
**Lathy**, P. L. London, Trans. Ent. Soc.,  
**1903**, (199, pl. VIII).

*Larinopoda brenda* n. sp. West  
Africa. **Druce**, H. H. C. J. Ann. Mag.  
Nat. Hist., London, (Ser. 7), **11**, 1903,  
(69-70).

*Liptena submacula* n. sp. West  
Africa. **Lathy**, P. L. London, Trans.  
Ent. Soc., **1903**, (196, pl. VIII).

*Lycaena*. **Petersdorf**. Berliner ent.  
Zs., **48**, 1903, ((16)-(17)).

———— nn. spp. **Skinner**, H.  
Philadelphia, Pa., Ent. News Acad.  
Nat. Sci., **13**, 1902, (15).

———— *aleon* F., die Futterpflanze,  
das Ei und die junge Raupe. **Gillmer**,  
M. Soc. Entomol., Zürich, **17**, 1902,  
(92-93, 98-99).

———— *arion* in Britain, historical  
notes. **Dale**, C. W. Ent. Mag., London,  
**39**, 1903, (4-5).

———— earlier stages.  
**Frohawke**, F. W. Entomologist, London,  
**36**, 1903, (57-60).

———— *babhru* n. sp. Bolivia.  
**Weekes**, A. G., jun. Philadelphia, Pa.,  
Acad. Nat. Sci., Trans. Amer. Ent. Soc.,  
**27**, 1901, (353-360).

*Lycaena corydon*, Poda ab. *cinnus*,  
Abbildung. **Gillmer**, M. Soc. Entomol.,  
Zürich, **17**, 1902, (68-69).

———— *corydon*, Varietäten. **Krüger**.  
Berliner ent. Zs., **48**, 1903, ((22)-(23)).

———— Aberrationen.  
**Leonhardt**, W. Ent. Zs., Guben, **16**,  
(1902-1903), 1902, (50).

———— *eumedon*, Varietäten und  
Aberrationen. **Schultz**, O. Lc. (263-  
269).

———— *pseudargiolus* f. *neglecta*,  
hermaphroditism. **Winn**, A. F. Phila-  
delphia, Pa., Ent. News Acad. Nat. Sci.,  
**13**, 1902, (78).

———— *ruberrothaei* n. sp. Bolivia.  
**Weekes**, A. G., jun. Lc. (104-108).

*Lycaenesthes* nn. spp. West Africa.  
**Bethune-Baker**, G. T. Ann. Mag. Hist.,  
London, (Ser. 7), **12**, 1903, (332-334).

———— nn. spp. Africa. **Pagen-  
stecher**, A. Wiesbaden, Jahrb. Ver.  
Nat. K., **55**, 1902, Abt. II, (113-204).

*Mahathala hainani* n. sp. **Bethune-  
Baker**, G. T. London, Trans. Zool.  
Soc., **17**, 1903, (23).

*Micropentila dorothea* n. sp. West  
Africa. **Bethune-Baker**, G. T. Ann.  
Mag. Nat. Hist., London, (Ser. 7), **12**,  
1903, (327-328).

*Myrina subornata* n. sp. West Africa.  
**Lathy**, P. L. London, Trans. Ent. Soc.,  
**1903**, (198, pl. VIII).

*Pentila* nn. spp. West Africa.  
**Lathy**, P. L. Lc. (195-196, pl. VIII).

———— *clarensis* n. sp. Uganda.  
**Neave**, S. A. Ent. Mag., London, **39**,  
1903, (136-138).

———— *septistrigata* n. sp. West  
Africa. **Bethune-Baker**, G. T. Ann.  
Mag. Nat. Hist., London, (Ser. 7), **12**,  
1903, (325-326).

*Phytala leonina* n. sp., *P. elais*: *catori*  
n. subsp. West Africa. **Bethune-  
Baker**, G. T. Lc. (328-329).

*Pseuderesia gordoni* n. sp. West  
Africa. **Druce**, H. H. C. J. Lc. **11**, (69).

———— *morealsi* n. sp. Congo.  
**Aurivillius**, C. Entomol. Tidskr.,  
Stockholm, **22**, 1901, (113-128).

*Telipna actinotina* n. sp. West  
Africa. **Lathy**, P. L. London, Trans.  
Ent. Soc., **1903**, (194-195, pl. VIII).



*Thecla spadix* n. sp. **Grinnell**, F., jun. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (10-11).

—— *icernickei* n. sp. **Böber**, J. Stettiner ent. Ztg., **64**, 1903, (337-358).

*Thysonitis schaefferi* : *annamensis* n. subsp. **Fruhstorfer**, H. Berliner ent. Zs., **48**, 1903, (110).

*Uranotes* (*Theckla*) *melinus* **Hüb**, habits. **Rivers**, J. J. Los Angeles, Bull. So. Cal. Acad. Sci., **1**, 1902, (41-42).

*Zephyrus tazila*. **Bremer**, life history. (Japanese) **Nawa**, Y. Konch. Sek., Gifu, **7**, 1903, (317-319).

## PIERIDAE.

### GENERAL.

**Fruhstorfer**, H. Verzeichniss der in Tonkin, Annam und Siam gesammelten Pieriden und Besprechung verwandter Formen. D. ent. Zs. Iris, Berlin, **15**, (1902), 1903, (269-305).

—— Verzeichniss der in Hinter-Indien gesammelten Pieriden. Soc. Entomol., Zürich, **18**, 1903, (18-19, 25-26).

—— Tonkin-Pieriden. Lc. (41-42).

### SPECIAL.

*Anthocharis genutia*, habits. **Hornig**, H. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (252).

*Aporia crataegi*. Variabilität der Flügelänge. **Sachmetjew**, P. Allg. Zs. Ent., Neudamm, **8**, 1903, (382-395, 470-494).

—— notes on the life-history. **Battley**, A. U. Entomologist, London, **36**, 1903, (249-251).

*Baltia sikkima* n. sp. **Fruhstorfer**, H. D. ent. Zs. Iris, Berlin, **16**, 1903, (48-50).

*Belenois teutonia* : *anita* n. subsp. **Fruhstorfer**, H. Berliner ent. Zs., **48**, 1903, (107).

*Calophaga melania* nn. subsp. **Fruhstorfer**, H. Soc. Entomol., Zürich, **18**, 1903, (7).

*Captosilia scylla* : *bangkejana* n. subsp. **Fruhstorfer**, H. Lc. (73).

*Colias eogene* : *miranda* n. subsp. Sikkim. **Fruhstorfer**, H. Insektenbörse, Leipzig, **20**, 1903, (148).

—— *nastes* Bsd. var. *uerdandi* Zett. und ihre Aberrationen. **Thurau**, F. Berliner ent. Zs., **48**, 1903, (113-116).

—— abb. **Thurau**, F. Lc. ((30)).

—— *palaeno* : *asias* n. subsp. China and Japan. **Fruhstorfer**, H. D. ent. Zs. Iris, Berlin, **16**, 1903, (48-50).

—— *phicomone* : *phila* n. subsp. Kashmir. **Fruhstorfer**, H. Lc. (47).

—— *philodice*, notes. **Kilworth**, A. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (103-104).

*Euchloe sara* var. *reakirti*, egg. **Minot**, G. R. Lc. (158).

*Gonopteryx rhamni*, Umgürtungsfaden der Puppen u. die Flügelbildung. **Rey**. Berliner ent. Zs., **48**, 1903, ((3)).

*Hebomoia glaucippe* : *aurantiaca* n. subsp. Obi. **Fruhstorfer**, H. Insektenbörse, Leipzig, **20**, 1903, (349, 357).

*Puphina nama* : *eunama* n. subsp. **Fruhstorfer**, H. Lc. (110).

—— *pitys* : nn. subsp. **Fruhstorfer**, H. Lc. (102-106).

—— : *mithra* n. subsp. **Fruhstorfer**, H. Soc. Entomol., Zürich, **18**, 1903, (18).

*Ixias yunnanensis* n. subsp. Yunnan. **Fruhstorfer**, H. Lc. **17**, (81).

*Leptosia ziphia* nn. subsp. **Fruhstorfer**, H. Lc. **18**, (18).

*Leucophasia lathyri* III. **Foulquier**, G. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (151).

*Mylothris erlangeri* n. sp. Africa. **Pagenstecher**, A. Wiesbaden, Jahrb. Ver. Natk., **55**, 1902, Abt. II, (113-204).

*Nepheronia* nn. subsp. **Fruhstorfer**, H. Berliner ent. Zs., **48**, 1903, (97-99).

—— *jobaea* : *obiana* n. subsp. Obi. **Fruhstorfer**, H. Insektenbörse, Leipzig, **20**, 1903, (349-357).

—— *valeria hippia* F. oder n. subsp. Tonkin. **Fruhstorfer**, H. Soc. Entomol., Zürich, **18**, 1903, (41-42).

*Pieris brassicae*, la chenille du chou. **Taes**, H. Chron. Agric., Lausanne, **15**, 1902, (1-10).

\_\_\_\_\_ une invasion de chenilles du chou. **Taes**, H. Lausanne, Bul. Soc. Sci., Nat., **38**, 1902, (XIX); Arch. Sci. Phys., Genève, (sér. 4), **13**, 1902, (602).

\_\_\_\_\_ Une aberration de. (Russ) **Jachantov**, A. A. Rev. Russ. Ent., Jaroslavl, **3**, 1903, (38).

\_\_\_\_\_ (cavolaia); mezzi chimici di lotta contro [di essa]. **Guercio** (Del), G. Bollettino di Entomologia agraria, Padova, **9**, 1902, (63-65).

\_\_\_\_\_ *hospitis* n. sp. Afrika. **Weymer**, G. D. ent. Zs. Iris, Berlin, **16**, 1903, (221-235).

\_\_\_\_\_ *gidica*, larva, pupa. **Fawcett**, J. M. London, Trans. Zool. Soc., **17**, 1903, (168, pl. VI, figs. 17-20).

*Pinacopteryx venatus* ♂. **Dixey**, F. A. D. London, Trans. Ent. Soc., **1903**, (153).

✓ *Prioneris autothise*: *orientalis* n. subsp., *P. clemathe*: *themanana* n. subsp. **Fruhstorfer**, H. Soc. Entomol., Zürich, **18**, 1903, (35).

\_\_\_\_\_ *thestylis*: *formosana* n. subsp. **Fruhstorfer**, H. Berliner ent. Zs., **48**, 1903, (109).

*Rhodocera cleopatra*, L., observations. **Brascassat**, M. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (64).

\_\_\_\_\_ dans les Charentes. **Dupuy**, G. Question. l.c. (9-10).

\_\_\_\_\_ **Glard**, A. l.c. (33-34).

\_\_\_\_\_ A propos de l'observation de M. Brascassat. **Glard**, A. l.c. (84).

\_\_\_\_\_ **Rocquigny-Adanson**, G. de. l.c. (33-52).

*Tachyris nero*: *neronis* n. subsp. **Fruhstorfer**, H. Soc. Entomol., Zürich, **18**, 1903, (17).

*Teracolus*, a monograph on the genus. **Sharpe**, E. M. B. Pts 9, 10, [1901]. pt. 11 [1902] London (101-156, pls xxxii-xliii). 4to.

\_\_\_\_\_ *annae* Wilgr. ab. *sulphurea* n. ab., *T. incertus* ab. *panganensis* n. ab.

**Thurau**, F. Berliner ent. Zs., **48**, 1903, (312).

*Terias eximia* n. sp. Ostafrika. **Thurau**, F. l.c. (117-144).

## PAPILIONIDAE.

### GENERAL.

**Aitken**, E. H. and **Comber**, E. List of butterflies of family *Papilionidae*, from Koukan. Bombay, J. Nat. Hist. Soc., **15**, 1903, (50-55).

**Fruhstorfer**, H. Neue Papilioformen und andere Lepidopteren aus Ost-Asien und dem malayischen Archipel. D. ent. Zs. Iris, Berlin, **15**, (1902), 1903, (306-315).

\_\_\_\_\_ Neue Papilioniden aus dem australischen Gebiet. l.c. **16**, 1903, (11-16).

\_\_\_\_\_ Verzeichnis der in Tonkin, Annam und Siam gesammelten Papilioniden und Besprechung verwandter Formen. Berliner ent. Zs., **47**, 1902, [1903], (167-234).

**Moore**, F. *Lepidoptera indica*. Parts LXI-LXVI. Vol. VI. London, 1903, (1-104, pls. 467-512).

**Wytaman**, P. Fascicule 4. *Lepidoptera Rhopalocera* fam. *Papilionidae*, subfam. *Leptocircinae*. In: Genera insectorum. Bruxelles, 1902, (3, av. 1 pl.). fr. 2.50.

**Young**, L. C. H. The classification of the *Lepidoptera Papilionina*. Bombay, J. Nat. Hist. Soc., **15**, 1903, (294-311).

### SPECIAL.

*Deoris* n. gen., type *Papilio agetes*. **Moore**, F. Lep. Ind., VI, 1903, (31).

*Junonia erigone*: *gardeneri* n. nom. = *Precis celebensis* Butl.; *J. erigone*: *leucophora* n. subsp. **Fruhstorfer**, H. D. ent. Zs. Iris, Berlin, **15**, (1902), 1903, (306-315).

*Ornithoptera criton*: *critonides* n. subsp. **Fruhstorfer**, H. Soc. Entomol., Zürich, **18**, 1903, (149).

\_\_\_\_\_ *goliath*. **Fassi**, A. H. Insektenbörse, Leipzig, **20**, 1903, (100).

\_\_\_\_\_ *miranda*: *neomiranda* n. subsp. **Fruhstorfer**, H. Soc. Entomol., Zürich, **18**, 1903, (57).

*Ornithoptera paradisea* ab. *auriflua* n. subsp. **Fruhstorfer**, H. l.c. (49).

———— *priamus* n. var. **Fruhstorfer**, H. Berliner ent. Zs., **48**, 1903, (18–20)).

———— *zacheri* n. sp. **Suffert**, E. Insektenbörse, Leipzig, **20**, 1903, (235–236).

*Papilio*, neue Formen aus dem indomalayischen Gebiet. **Fruhstorfer**, H. D. ent. Zs. Iris, Berlin, **15**, 1902, (161–168).

———— nn. spp. Africa. **Rothschild**, Hon. W. and **Jordan**, K. Nov. Zool., Tring, **10**, 1903, (488–489).

———— n. subsp. **Fruhstorfer**, H. Berliner ent. Zs., **48**, 1903, ((3–4)).

———— nn. subspp. **Fruhstorfer**, H. D. ent. Zs. Iris, Berlin, **14**, (1901), 1902, (270, 342–349); **15**, 1902, (169–178, 306–315); **16**, 1903, (11–16).

———— nn. subspp. Afrika. **Fruhstorfer**, H. Stettiner ent. Ztg., **64**, 1903, (359–360).

———— nn. varr. **Fruhstorfer**, H. Soc. Entomol., Zürich, **17**, 1902, (57).

———— *antiphates*: *antiphanus* n. subsp. **Fruhstorfer**, H. l.c. **16**, 1902, (170).

———— *asterias*, notes. **Ellesworth**, A. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (103–104).

———— *homerus*. Jamaica. **Robinson**, W. l.c. **14**, 1903, (17–21).

———— *macareus*: *lioneli* n. nom. for *P. indicus* Niceville; *P. jordani* n. sp.; 5 nn. subspp. **Fruhstorfer**, H. Soc. Entomol., Zürich, **17**, 1902, (74).

———— *macfarlanei*: *cestius* n. subsp (Lokalität unbekannt). **Fruhstorfer**, H. l.c. **18**, (149).

———— *machao*n, chenilles exhalant une odeur de musc. **Caillon**, F. Feuille jeunes natural., Paris, (sér. 4), **34**, 1903, (38).

———— in Japan (2 nn. varr.). **Neuburger**, W. Soc. Entomol., Zürich, **18**, 1903, (42–43).

———— **Rocquigny-Adanson**, G. de. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (205).

———— Aberrationen des Schwalbenschwanzes. **Spengel**, [J.

W.]. Giessen, Ber. Ges. Natk., **33**, 1899–1902, (206–207).

*Papilio mikado* var. *albidus* n. var. **Wileman**, A. E. Entomologist, London, **36**, 1903, (300).

———— *philenor* in New Hampshire following food plant, *Aristolochia siph.* **Poster**, F. H. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (326).

———— *podalirius* L., limite septentrionale de son extension en France et en Belgique. **Rocquigny-Adanson**, G. de. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (163).

———— aire de. **Rocquigny-Adanson**, G. de. l.c. **31**, 1903, (19).

———— *polyzenes* var. *curvifascia* n. var. **Skinner**, H. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (183).

———— *princeps* n. sp. Neuguinea. **Weymer**, G. Ent. Zs., Guben, **18**, (1902–03), 1902, (5–6).

———— *rosenbergi* n. sp. Ecuador. **Druce**, H. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (221–222).

———— *zenocles*: *kephisos* n. subsp. **Fruhstorfer**, H. Soc. Entomol., Zürich, **16**, 1902, (145–146).

*Parnassius* nn. spp. **Fruhstorfer**, H. D. ent. Zs. Iris, Berlin, **16**, 1903, (43–43, mit Taf.).

———— nn. subspp. **Fruhstorfer**, H. Soc. Entomol., Zürich, **18**, 1903, (49–50).

———— *acco*: *aconius* n. subsp. Sikkim. **Fruhstorfer**, H. Insektenbörse, Leipzig, **20**, 1903, (148).

———— *apollodelius*, Ein Hybride. **Frings**, C. l.c. (52).

———— *clodius* var. *altaurus* n. var. United States. **Dyar**, H. G. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (290–298).

———— *epaphus*: *huxei* n. subsp. Afrika. **Fruhstorfer**, H. Stettiner Ent. Ztg., **64**, 1903, (360–361).

———— *imperator*: *augustus* n. subsp. **Fruhstorfer**, H. Soc. Entomol., Zürich, **18**, 1903, (113).

*Pathysa* nn. spp. Travancore, Sikkim. **Moore**, F. Lep. Ind., London, **VI**, 1903, (22, pl. 475, figs. 1, 2; 29, pl. 478, fig. 1).

*Podalirius*, géonémie. **Nerville**, F. de. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (205).

*Thais polyxena*, Ei und ersten Raupenstadien. **Zdobnický**, W. Soc. Entomol., Zürich, **18**, 1903, (36).

——— *rumina*, *T. alicia*, *T. paucipunctata*, *T. bella* nn. abb. **Neuburger**, W. *L.c.* **17**, (154–155).

*Troides omphrysus gardineri* n. nom. für *Troides ruficollis* Rothschild. **Fruhstorfer**, H. *L.c.* 1902, (57).

——— *priamus*: *poseidon* var. *boreas* n. var. **Fruhstorfer**, H. D. ent. Zs. Iris, Berlin, **14**, (1901), 1902, (349).

——— var. *aesacus* n. var. Obi. **Ney**, F. Insektenbörse, Leipzig, **20**, 1903, (36).

## HESPERIDAE.

### GENERAL.

**Mabille**, P. Lepidoptera rhopalocera fam. *Hesperidae*. In: Wytzman; Genera Insectorum, Bruxelles, 1903, (78). 15 fr.

**Oberthur**, C. The Hesperiides of Brittany. Ent. Rec., London, **15**, 1903, (179–180).

**Skinner**, H. [*Hesperidae* from the United States.] Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (183).

### SPECIAL.

*Aethilla subviolacea* n. sp. Ecuador. **Mabille**, P. In: Wytzman, P., Genera Insectorum, Bruxelles, 1903, (32).

*Anatolmis regulus* n. sp. California. **Grinnell**, F., jun. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (11).

*Ate acuatorica* n. sp. Ecuador. **Mabille**, P. In: Wytzman, P., Genera Insectorum, Bruxelles, 1903, (57).

*Baoris orrugana* n. sp. West Africa. **Lathy**, P. L. London, Trans. Ent. Soc., **1903**, (204–205, pl. VIII).

*Bolla* n. gen. **Mabille**, P. In: Wytzman, P., Genera Insectorum, Bruxelles, 1903, (72).

*Camptopleura cataphanes* n. sp. **Mabille**, P. *L.c.* (69).

*Charidia* n. gen. **Mabille**, P. *L.c.* (73).

*Chaospes hemizanthus* n. sp., n. subsp. New Guinea. **Rothschild**, W. and **Jordan**, K. Nov. Zool., Tring, **10**, 1903, (481, pl. XI).

*Cobalopsis duspececa* n. sp. Bolivia. **Weeks**, A. G., jun. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (104–108).

*Cocceius syloson* n. sp. **Mabille**, P. In: Wytzman, P., Genera Insectorum, Bruxelles, 1903, (37).

*Croniades* n. gen. **Mabille**, P. *L.c.* (13).

*Cyclogypa* n. gen., *C. caeruleonigra* n. sp. **Mabille**, P. *L.c.* (70).

*Dichelura* n. gen. **Mabille**, P. *L.c.* (47).

*Epargyreus arsacis* n. sp. **Mabille**, P. *L.c.* (24).

*Eudamus* nn. spp. **Mabille**, P. *L.c.* (24).

*Gerosis* n. gen. **Mabille**, P. *L.c.* (49).

*Granila* n. gen. **Mabille**, P. *L.c.* (11).

*Hesperia actaeon*, gynandrous. **Ford**. Entomologist, London, **36**, 1903, (242).

*Leucochitonea hindei* n. sp. British East Africa. **Druce**, H. H. C. J. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (636–637).

*Marela* n. gen., *M. tamyris* n. sp. **Mabille**, P. In: Wytzman, P., Genera Insectorum, Bruxelles, 1903, (41).

*Megathymus ursus* n. sp. Arizona. **Polling**, O. C. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, ([97]–98, with pl.).

*Metardavis* n. gen. **Mabille**, P. In: Wytzman, P., Genera Insectorum, Bruxelles, 1903, (11).

*Miltomiges* n. gen. **Mabille**, P. *L.c.* (72).

*Mionectes* n. gen. **Mabille**, P. *L.c.* (41).

*Myseclus* nn. spp. **Mabille**, P. *L.c.* (13–14).

*Netrobalanae* n. gen. **Mabille**, P. *L.c.* (76).

*Nisoniades brunnea*. Florida. **Skinner**, H. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (110).

——— *naevius*. South Carolina. **Smyth**, E. A., jun. *L.c.* (333).

*Oxypalpus fulvus* n. sp. West Africa.  
Lathy, P. L. London, Trans. Ent. Soc.,  
1903, (203-204, pl. VIII).

*Paches naryceus* n. sp. **Mabille**, P.  
In: Wytsman, P., Genera Insectorum,  
Bruxelles, 1903, (57).

*Pamphila cuadrada* n. sp. Bolivia.  
**Weeks**, A. G., jun. Philadelphia, Pa.,  
Acad. Nat. Sci., Trans. Amer. Ent. Soc.,  
27, 1901, (353-360).

———— *palaemon* Pall. ab. *melicertes*  
m. und *P. silvius* Knoch. ab. *catella* m.  
**Schultz**, O. D. ent. Zs. Iris, Berlin, 15,  
(1902), 1903, (321-323).

———— *sabuleti* var. *tecumseh*  
n. var. **Grinnell**, F., jun. Philadelphia,  
Pa., Ent. News Acad. Nat. Sci., 14, 1903,  
(10-11).

———— *rievercki* n. sp. **Skinner**, H.  
l.c. 13, 1902, (213-214).

*Pellicia pericles* n. sp. **Mabille**, P.  
In: Wytsman, P., Genera Insectorum,  
Bruxelles, 1903, (59).

*Physalea* n. gen. **Mabille**, P. l.c. (26).

*Pithonides gellius* n. sp. **Mabille**, P.  
l.c. (56).

*Pyrdalus* n. gen. **Mabille**, P. l.c.  
(60).

*Sebaldia* n. gen. **Mabille**, P. l.c.  
(66).

*Staemactis* n. gen. **Mabille**, P. l.c.  
(70).

*Syrichtus nigella* n. sp. **Weeks**, A. G.,  
jun. Philadelphia, Pa., Ent. News Acad.  
Nat. Sci., 13, 1902, (104-108).

*Telegonus* nn. spp. Brazil. **Mabille**,  
P. In: Wytsman, P., Genera Insec-  
torum, Bruxelles, 1903, (25-26).

*Telesto melania* n. sp., *T. monticolae*  
Olliff. Australia. **Waterhouse**, G. A.  
Vict. Nat., Melbourne, 20, 1903, (52-  
54).

*Thymele* nn. spp. **Mabille**, P. In:  
Wytsman, P., Genera Insectorum,  
Bruxelles, 1903, (27).

*Trapezites maheta*, Hewitson, *T. maheta*  
var. *iacchoides* n. var., *T. maheta* var.  
*phigaloides*. Australia. **Waterhouse**,  
G. A. Vict. Nat., Melbourne, 20, 1903,  
(54-57).

## HETEROCERA.

### GENERAL.

Die palaearktischen Grossschmetter-  
linge und ihre Naturgeschichte. Bd 1  
bearb. von Fritz Rühl. Bd 2. Nacht-  
falter. Abt. 1, bearb. von Max Bartel.  
Lfg 22 = Bd 2, Lfg 6. Leipzig (J.  
Paul), 1902, (241-288). 1,50 M.

**Crombrughe de Ploquendaale**, de.  
Note sur quelques microlépidoptères de  
la faune belge. Bruxelles, Ann. Soc.  
ent. Belgique, 45, 1901, (100-104); 1902,  
(481-483).

**Dudgeon**, G. C., **Elwes**, H. J., **Hamp-  
son**, Sir G. F. A catalogue of the Hete-  
rocera of Sikkim and Bhutan. Bombay,  
J. Nat. Hist. Soc., 15, 1903, (319-326).

**Dyar**, H. G. A review of the North  
American species of the Lepidopterous  
family *Aulroceridae*. [With biblio-  
graphy.] Washington, D.C., Proc. Ent.  
Soc., 5, 1903, (322-329).

**Fruhstorfer**, H. Verzeichnis der in  
Tonkin, Annam und Siam gesammelten  
Nemeobiinae und Libythaeninae und Be-  
sprechung verwandter Formen. Ber-  
liner ent. Zs., 48, 1903, (274-296).

**Fuchs**, A. Alte und neue Kleinfalter  
der europäischen Fauna. Stettiner ent.  
Ztg., 64, 1903, (227-247).

———— Alte und neue Gross-  
schmetterlinge der europäischen Fauna.  
Wiesbaden, Jahrb. Ver. Natk., 55, 1902,  
Abt. II, (67-80).

**Hampson**, Sir G. F. The moths of  
India. Supplementary Paper to the  
volumes in "The Fauna of British  
India." Ser. II, pts. VI-X. Bombay,  
J. Nat. Hist. Soc., 14, 1903, (639-659);  
15, No. 2, 1903, (19-37, 206-225, 1 pl.).

**Herr**, O. Verzeichniss der auf der Mam-  
muth-Expedition gesammelten Lepido-  
ptera. St. Petersburg, Ann. Mus. zool.  
Ac. Sc., 8, 1903, (61-87).

**Hudson**, G. V. On some new species  
of Macrolepidoptera. Wellington, Trans.  
N. Zeal. Inst., 35, 1903, (243-245).

**Kearfott**, W. D. Notes on a Erio-  
cranid larva. Philadelphia, Pa., Ent.  
News Acad. Nat. Sci., 13, 1902, (129-  
132).

**Labonnefon**, C. de. Almanach du  
chasseur de chenilles. Internéd. bom-  
bycult., Paris, 2, 1902, (336-341, 361-  
369); 3, 1903, (6-15).

**Laurent, P.** The moths (Heterocera) of Eastern Pennsylvania. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (43-45, 69-72, 111-113, 139-140, 169-171).

**Markov, M.** Matériaux pour servir à la faune des Macrolépidoptères du gouvernement de Poltava. (Russ.) Charikov, Trd. Obsč. ispyt. prir., **37**, 1902, [1903], (257-272).

**Miyake, T.** [Heterocera of Japan, figured and annotated.] (Japanese) Dobuts. Z., Tokyo, **15**, 1903, (311-316).

**Bothschild, Hon. W. and Jordan, K.** A monograph of *Charaxes* and the allied Prionopterous genera (conclusion). Nov. Zool., Tring, **10**, 1903, (326-342).

**Sanderson, E. D.** Some destructive caterpillars. Agric. Exp. Sta., Delaware, Newark, Bull., No. **56**, 1902, (28, with 14 figs.). 23 cm.; [review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta., Rec., **14**, 1902, (372).

**Shufeldt, R. W.** Beautiful moths. [Heterocera.] Amer. Inv., Washington, D.C., **10**, 1903, (33-95).

**Stebbing, E. P.** Larvae found in acorns of *Quercus semicarpifolia* in Punjab. Description and note. Departmental Notes on Insects that affect Forestry No. 2. Calcutta, 1903, (161-162).

**Swinhoe, C.** A revision of the Old World *Lymantriidae* in the national collection. London, Trans. Ent. Soc., **1903**, (375-498).

Report on the Heterocera from the Malay Peninsula. Fascic. Malay. Zool., **1**, (51-109).

**Walsingham, Lord.** Spanish and Moorish Micro-Lepidoptera [cont.] Ent. Mag., London, **39**, 1903, (179-187, 209-214, 262-268, 292-293).

Lepidoptera. III. *Pterophoridae* and *Tineina*. Nat. Hist. Sokotra, (343-356, pl. XXI).

## CASTNIIDAE.

*Apoprogon* n. gen., *A. hesperistis* n. sp. Zululand. **Hampson**, Sir G. F. London, Trans. Ent. Soc., **1903**, (137-139).

## SATURNIDAE.

*Agria tau* L., einige aberative Formen darunter ab. *caecata* Schultz. **Schultz, O.** Soc. Entomol., Zürich, **17**, 1903, (178-179).

ab. *melaina*  
**Gross** und *Agria tau* L. var. *cupreola* n. **Werner, A.** l.c. (129-130); Ent. Zs., Guben, **16**, (1902-03), 1902, (65-66).

*Antheraea jana* nn. subsp. Borneo and Burma. **Bothschild, Hon. W.** Nov. Zool., Tring, **10**, 1903, (311).

*pernyi* Guér., Zucht- und Akklimatisationsversuche im nordwestlichen Deutschland. **Bothschild, M.** Ent. Jahrb., Leipzig, **12**, 1903, (160-164).

*Attacus tucumani* n. sp. S. America. **Dognin, P.** Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (304).

*Bunaea patruelis* n. sp. **Distant, W. L.** Insecta transvaaliensia, Pt. IV, (96).

*redlichi* n. sp. **Weymer, G.** Die Lepidopteren der Kuene-Sambesi-Expedition. Berlin, 1903, (543-559).

*Caligula japonica*, Häutungen. **Gruss, Fr., jun.** Insektenbörse, Leipzig, **20**, 1903, (388-389).

*Campimoptilum ochraceum* n. sp. Deutsch Ost-Afrika. **Aurivillius, C.** Entomol. Tidskr., Stockholm, **2**, 1901, (113-128).

*Hylesia* nn. spp. S. America. **Dognin, P.** Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (306-307).

*Platysamia cecropia*, Hermaphroditismus. **Heckel** Ent. Zs., Guben, **16**, (1902-03), 1902, (31).

*Samia cecropia* L. ♂ × *Samia ceanothi* Behr ♀ notice sur l'hybride. **Auberjonois, M.** J. naturaliste, Mâcon, **2**, 1902, (90-96, av. 2 pls.).

*cynthia*, cocoons, **Hornig, H.** Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (132-134, with pl.).

*Saturnia* (*Agapema* Neum. and Dyar) *anona* n. sp. Arizona. **Ottolengui, R.** Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (311-314).

*pyri*. **Coulon.** Feuille jeunes natural., Paris, (sér. 4), **35**, 1903, (38).

*Saturnia pyri*, capture. **Godon**, J. l.c. **33**, 1902, (9).

——— **Sajó**, K. Natur u. Schule, Leipzig, **2**, 1903, (229-232).

#### CERATOCAMPIDAE.

*Cithronia sepulchralis* in Pennsylvania. **Geddes**, J. M. Philadelphia, Pa., Ent. News Acad. Nat. Sci., Amer. Ent. Soc., **14**, 1903, (284-285).

*Eusysa n. gen.*, type *Attacus honesta* Stoll. **Packard**, A. S. New York, N.Y., J. Ent. Soc., **11**, 1903, (244-249).

*Hyperdirphia n. gen.*, type *Attacus tarquinia* Cramer. **Packard**, A. S. l.c. (244-249).

*Leucopteryx n. gen.*, type *Ceranthia mollis* Butler. **Packard**, A. S. l.c. (244-249).

*Mesoleuca n. gen.*, type *Hemileuca rosea* Walker. **Packard**, A. S. l.c. (244-249).

*Prototomeris n. gen.*, type *Dirphia moeonia* Druce. **Packard**, A. S. l.c. (244-249).

*Rhoormiscodes n. gen.*, type *Ormiscodes rosea* Druce. **Packard**, A. S. l.c. (244-249).

#### BOMBYCIDAE.

##### GENERAL.

**Czard**, L. Educations de Bombyciens séricigènes en 1902. Paris, Bul. soc. nat. acclim., **49**, 1902, (382-386).

**Rudow**. Schmarotzer der einheimischen Spinner. Insektenbörse, Leipzig, **20**, 1903, (196-197).

##### SPECIAL.

*Bombyx mori*, Seidenbaufrage. **Dammer**, U. Tropenpflanzer, Berlin, **7**, 1903, (72-79).

——— **Energie** u. Stoffwechselung. **Farkas**, K. Math. Term. Ért., Budapest, **21**, 1903, (59-61).

*Bombyx mori*, la ponte. **Gal**, J. Paris, C. R. Acad. sci., **137**, 1903, (932-934).

——— physiological variations. **Kellogg**, V. L. and **Bell**, R. G. Science, New York, N.Y., (N. Ser.), **18**, 1903, (741-748).

——— production du glucose par les tissus. **Maignon**, F. Paris, C.-R. Acad. sci., **137**, 1903, (93-95).

——— *populi* L., Raupe und Puppe. (Holländisch) **Galand**, M. 's Gravenhage, Tijdschr. Ent., **46**, [1903], (65-70).

——— *quercus*, Unregelmässige Entwicklung. **Fritzsche**, C. Soc. Entomol., Zürich, **17**, 1903, (185-186).

——— *rubi*, Lebensweise. **Hallerland**, J. Insektenbörse, Leipzig, **20**, 1903, (115).

*Dendrolimus laticis* Tschtr. n. sp. Ein neuer und schädlicher Spinner der paläarktischen Region. **Tschetwerikoff**, S. Soc. Entomol., Zürich, **18**, 1903, (89-90).

#### EUPTEROTIDAE.

*Apatelodes fastidiosa* n. sp. Tucuman. **Dognin**, P. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (308).

*Dirphia* nn. spp. Ecuador. **Dognin**, P. l.c. (305-306).

*Hoplojana* n. gen., *H. indecisa* n. sp. **Aurivillius**, C. Entomol., Tidskr., Stockholm, **22**, 1901, (113-128).

*Hypsoides ambriensis* n. sp. Madagascar. **Poujade**, G. A. Bul. Muséum, Paris, **1903**, (57).

*Janomima karschi* n. sp. Afrika. **Weymer**, G. D. ent. Zs. Iris, Berlin, **16**, 1903, (221-235).

*Phiala pulverea* n. sp. **Distant**, W. L. Insecta transvaaliensia, Pt. IV, (82).

*Phyllalia flavicostata* n. sp. South Africa. **Fawcett**, J. M. London, Trans. Zool. Soc., **17**, 1903, (173).

*Prismosticta tiretta* n. sp. Malay Peninsula. **Swinhoe**, C. Fascic. Malay. Zool., **1**, (52).

#### SPHINGIDAE.

##### GENERAL.

**Rudow**. Die Schmarotzer unserer einheimischen Schwärmer (Sphingiden). Insektenbörse, Leipzig, **20**, 1903, (196).

## SPECIAL.

*Acherontia* sp. from Japan, described and figured. (Japanese) Miyake, T. Dobuts. Z., Tokyo, 15, 1903, (354-358, 384-390).

—— *atropos*, évolution. Giard, A. Feuille jeunes natural., Paris, (sér. 4), 33, 1903, (124-127).

—— observations. Litsaog, A. L. l.c. (150-151).

—— évolution. Loisele, A. A. l.c. (127).

—— évolution. Siépi, P. l.c. (104-105).

—— *styz crathis* n. nom. Rothschild, Hon. W. and Jordan, K. Nov. Zool., Tring, 9, Supplement, 1903, (23-24).

*Acosmeryx* nn. spp. Rothschild, Hon. W. and Jordan, K. l.c. (528, 530-531).

*Allopos fadus* var. *titan* in New Mexico. Cockerell, T. D. A. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (326).

*Agnoia* n. gen. India and Ceylon. Rothschild, Hon. W. and Jordan, K. l.c. (294-295).

*Akbesia* n. gen. Syria. Rothschild, Hon. W. and Jordan, K. l.c. (191-192).

*Aleuron* nn. spp. South America. Rothschild, Hon. W. and Jordan, K. l.c. (396-399).

*Amblypterus ypsilon* n. sp. Rothschild, Hon. W. and Jordan, K. Nov. Zool., Tring, 9, Supplement, 1903, (182-183).

*Ambulyx postica*, larva. Fawcett, J. M. London, Trans. Zool. Soc., 17, 1903, (174, pl. VII, figs. 1, 1A).

—— *triseeta* n. sp. Congo. Auvillius, C. Entomol. Tidskr., Stockholm, 22, 1901, (113-128).

*Amorpha amurensis*: *sinica* n. subsp. China. Rothschild, Hon. W. and Jordan, K. Nov. Zool., Tring, 9, Supplement, 1903, (337).

—— *populi* ab. *pallida* Tutt and A. *populi* ab. *subflava* Gillmer. Gillmer, M. Insektenbörse, Leipzig, 20, 1903, (28-29).

(N 2-9053)

*Ampelosca* n. gen. Rothschild, Hon. W. and Jordan, K. l.c. (522).

*Amphimoea* n. gen. America. Rothschild, Hon. W. and Jordan, K. l.c. (60).

*Anambulyx* n. gen. North India. Rothschild, Hon. W. and Jordan, K. l.c. (312).

*Angonyx meeki* n. sp., *A. testacea*: *papuana* n. subsp. Rothschild, Hon. W. and Jordan, K. l.c. (544-545).

*Antinephole lunulata* n. sp. Africa. Rothschild, Hon. W. and Jordan, K. l.c. (598).

*Atemnora* n. gen. Rothschild, Hon. W. and Jordan, K. l.c. (615-616).

*Batoenema* n. gen., *B. cocquereli*: *comorana* n. subsp. East Africa. Rothschild, Hon. W. and Jordan, K. l.c. (190-191).

*Bellia* n. gen., type *coccus*. Tutt, J. W. Ent. Rec., London, 15, 1903, (43).

*Berutana* n. gen. Rothschild, Hon. W. and Jordan, K. Nov. Zool., Tring, 9, supplement, 1903, (319-320).

*Callambulyx* n. gen., *C. rubricosa*: *amanda* n. subsp. Rothschild, Hon. W. and Jordan, K. l.c. (307-309).

*Cehenena* n. gen., *C. helops*: *papuana* n. subsp. Rothschild, Hon. W. and Jordan, K. l.c. (799, 802).

*Celerio euphorbiae* nn. subsp. Rothschild, Hon. W. and Jordan, K. l.c. (720-722).

*Centroctena* n. gen. Africa. Rothschild, Hon. W. and Jordan, K. l.c. (790).

*Cephonodes* nn. spp. Rothschild, Hon. W. and Jordan, K. l.c. (464-471).

*Ceridia* n. gen., *C. mira* n. sp. East Africa. Rothschild, Hon. W. and Jordan, K. l.c. (286-287).

*Chaerocampa eson*, *C. orphneus*, larva, pupa. Fawcett, J. M. London, Trans. Zool. Soc., 17, 1903, (175-176, pl. VII, figs. 6-8, pl. VIII, figs. 20-22).

*Chaerocina* n. gen. East Africa. Rothschild, Hon. W. and Jordan, K. Nov. Zool., Tring, 9, supplement, 1903, (741).



*Chlaenogramma undata* n. sp., n. subsp. South America. **Rothschild**, *Hon. W. and Jordan*, K. l.c. (96-97, pl. XI).

*Clanidopsis* n. gen. N. W. India. **Rothschild**, *Hon. W. and Jordan*, K. l.c. 294).

*Clanis* nn. spp. **Rothschild**, *Hon. W. and Jordan*, K. l.c. (216-219).

*Clarina* n. gen., type *syriaca*. **Tutt**, J. W. Ent. Rec., London, 15, 1903, (76).

*Cocytius lucifer* n. sp. **Rothschild**, *Hon. W. and Jordan*, K. Nov. Zool., Tring, 9, supplement, 1903, (59-60).

*Coelon'a* n. gen. **Rothschild**, *Hon. W. and Jordan*, K. l.c. (24).

*Coenotes* n. gen. Queensland. **Rothschild**, *Hon. W. and Jordan*, K. l.c. (114).

*Compsogene* n. gen. China. **Rothschild**, *Hon. W. and Jordan*, K. l.c. (188).

*Cypa decolor: euroa* n. subsp. New Guinea. **Rothschild**, *Hon. W. and Jordan*, K. l.c. (299).

*Daddia* n. gen., type *kindermanni*. **Tutt**, J. W. Ent. Rec., London, 15, 1903, (43).

*Daphnis nerti*, L., trouvées dans la Gironde, note sur les chenilles. **Rondon**, Bordeaux, Actes soc. linn., 58, 1903, (Proc.-verb., CCLXX).

*Deilephila*, Hybriden. **Mory**, C. Schaffhausen, Mitt. Schweiz. Entomol. Ges., 10, 1903, (460-469).

—— *sichei* n. sp. **Püngeler**, R. Berliner ent. Zs., 47, 1902, [1903], (235-238, mit 1 Taf.).

*Dietyosoma* n. gen. **Rothschild**, *Hon. W. and Jordan*, K. Nov. Zool., Tring, 9, supplement, 1903, (111-112).

*Dolbinopsis* n. gen. N.W. India. **Rothschild**, *Hon. W. and Jordan*, K. l.c. (159).

*Dolbogene* n. gen. Central America. **Rothschild**, *Hon. W. and Jordan*, K. l.c. (103).

*Dovania* n. gen., *D. poecila* n. sp. British Central Africa. **Rothschild**, *Hon. W. and Jordan*, K. l.c. (46, 47, pl. VI).

*Ellenbeckia* n. gen., *E. monospila* n. sp. **Rothschild**, *Hon. W. and Jordan*, K. l.c. (809-810).

*Enpinanga* n. gen. Indo-Malay. **Rothschild**, *Hon. W. and Jordan*, K. l.c. (545).

*Enyo pronoe: fuscatus* n. subsp. **Rothschild**, *Hon. W. and Jordan*, K. l.c. (401).

*Epistior* nn. spp. **Rothschild**, *Hon. W. and Jordan*, K. l.c. (404, 407).

*Erinnys obscura: conformis* n. subsp. Galapagos Islands. **Rothschild**, *Hon. W. and Jordan*, K. l.c. (369).

*Euryglottis aper: guttiventris* n. subsp. Bolivia. **Rothschild**, *Hon. W. and Jordan*, K. l.c. (99).

*Eurypteryx shelfordi* n. sp., *E. bhaga: obtruncata* n. subsp. **Rothschild**, *Hon. W. and Jordan*, K. l.c. (545, 813).

*Florina* n. gen., type *japonica*. **Tutt**, J. W. Ent. Rec., London, 15, 1903, (76).

*Grammodia* n. gen. America. **Rothschild**, *Hon. W. and Jordan*, K. Nov. Zool., Tring, 9, supplement, 1903, (371).

*Haemorrhagia* nn. subsp. **Rothschild**, *Hon. W. and Jordan*, K. l.c. (451, 457).

*Hemaris tenuis* and *H. diffinis*, identity. **Smyth**, E. H., jun. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (82).

*Hemeroplanes inuus* n. sp. America. **Rothschild**, *Hon. W. and Jordan*, K. l.c. (391).

*Hippotion* nn. spp. Africa. **Rothschild**, *Hon. W. and Jordan*, K. l.c. (753, 761, 812).

*Hoplocnema* n. gen., *H. melanoleuca* n. sp. W. Australia. **Rothschild**, *Hon. W. and Jordan*, K. l.c. (158).

*Hoplistopus* n. gen., *H. penricei*, *H. butti* nn. spp. Africa. **Rothschild**, *Hon. W. and Jordan*, K. l.c. (49-50, pls. V and XI).

*Hyloicus* nn. spp. **Rothschild**, *Hon. W. and Jordan*, K. l.c. (120-149).

*Indiana* n. gen., type *bhaga*. **Tutt**, J. W. Ent. Rec., London, 15, 1903, (101).

*Isogramma* n. gen. Texas. **Rothschild**, *Hon. W. and Jordan*, K. l.c. (104-105).

*Isoparce* n. gen. **Rothschild, Hon. W. and Jordan, K. l.c.** (109-110).

*Kayeia* n. gen., type *maackii*. **Tutt, J. W. Ent. Rec., London, 15, 1903, (42).**

*Kentochrysalis consimilis* n. sp. Japan. **Rothschild, Hon. W. and Jordan, K. Nov. Zool., Tring, 9, Supplement, 1903, (164).**

*Langia zenzeroides: nauai* n. subsp. Japan. **Rothschild, Hon. W. and Jordan, K. l.c.** (292).

*Lepiseia tega* n. sp. United States. **Dyar, H. G. Washington, D.C., Proc. Ent. Soc., 5, 1903, (290-298).**

*Leptoclanis* n. gen., *L. pulchra* n. sp. Africa. **Rothschild, Hon. W. and Jordan, K. Nov. Zool., Tring, 9, Supplement, 1903, (228-229).**

*Leucomonia* n. gen. Australia. **Rothschild, Hon. W. and Jordan, K. l.c.** (41).

*Leucorhampha* n. gen., *L. diffusa*, *L. longistriga* nn. spp. S. America. **Rothschild, Hon. W. and Jordan, K. l.c.** (380-382).

*Leucostrophus* n. gen. Africa. **Rothschild, Hon. W. and Jordan, K. l.c.** (871).

*Likoma* n. gen., *L. apicalis* n. sp. **Rothschild, Hon. W. and Jordan, K. l.c.** (265-266).

*Lilina* n. gen., type *pinastriana*. **Tutt, J. W. Ent. Rec., London, 15, 1903, (101).**

*Lomocyma* n. gen. Madagascar. **Rothschild, Hon. W. and Jordan, K. Nov. Zool., Tring, 9, Supplement, 1903, (47-48).**

*Lycosphingia* n. gen. West Africa. **Rothschild, Hon. W. and Jordan, K. l.c.** (264).

*MacroGLOSSUM* nn. spp. **Rothschild, Hon. W. and Jordan, K. l.c.** (629-630, 636-669).

*Marumba* nn. spp. **Rothschild, Hon. W. and Jordan, K. l.c.** (274, 277-278, 806).

*Megacorma* n. gen. Oriental Region. **Rothschild, Hon. W. and Jordan, K. l.c.** (15).

*Microsphinz* n. gen. South Africa. **Rothschild, Hon. W. and Jordan, K. l.c.** (593).

(N 2-1 C53)

*Nannoparce* n. gen. **Rothschild, Hon. W. and Jordan, K. l.c.** (110).

*Neogene* n. gen. **Rothschild, Hon. W. and Jordan, K. l.c.** (112-113).

*Nephele* nn. spp. **Rothschild, Hon. W. and Jordan, K. l.c.** (558, 562).

*Nicholsonia* n. gen., type *salicete*. **Tutt, J. W. Ent. Rec., London, 15, 1903, (43).**

*Nyceryx nictitans: saturata* n. subsp. Peru. **Rothschild, Hon. W. and Jordan, K. Nov. Zool., Tring, 9, supplement, 1903, (420).**

*Odontosida* n. gen., *O. erlangeri* n. sp. South Africa. **Rothschild, Hon. W. and Jordan, K. l.c.** (586, 811-812).

*Oligographa* n. gen. Natal. **Rothschild, Hon. W. and Jordan, K. l.c.** (48-49).

*Orecta* n. gen. **Rothschild, Hon. W. and Jordan, K. l.c.** (185-186).

*Ozyambulyx* n. gen., *O. bima*, *O. meeki* nn. spp., *O. dohertyi: salomonis* n. subsp. Solomon Islands. **Rothschild, Hon. W. and Jordan, K. l.c.** (192-209).

*Pachygonia drucei* n. sp. Central America. **Rothschild, Hon. W. and Jordan, K. l.c.** (411).

*Pachylia syces: insularis* n. subsp. West Indies. **Rothschild, Hon. W. and Jordan, K. l.c.** (375-376).

*Pachyephinz* n. gen., *P. modesta: regalis* n. subsp. Nearctic Region. **Rothschild, Hon. W. and Jordan, K. l.c.** (339-343).

*Panaera* nn. spp. **Rothschild, Hon. W. and Jordan, K. l.c.** (537, 539-540).

*Panogena* n. gen., Madagascar. **Rothschild, Hon. W. and Jordan, K. l.c.** (33).

*Parum* n. gen. **Rothschild, Hon. W. and Jordan, K. l.c.** (295-296).

*Pemba* n. gen., *P. distantis* n. sp. East Africa. **Rothschild, Hon. W. and Jordan, K. l.c.** (45-46).

*Perigonia* nn. spp. South America. **Rothschild, Hon. W. and Jordan, K. l.c.** (424-435).

*Phanoxyia* n. gen. **Rothschild, Hon. W. and Jordan, K. l.c.** (712).

*Philodila* n. gen. **Rothschild, Hon. W. and Jordan, K. l.c.** (514).

2 u 2

*Pholus* nn. spp. **Rothschild**, *Hon. W. and Jordan*, K. l.c. (479-488).

*Phylloxiphia* n. gen., *P. oberthueri* n. sp. Africa. **Rothschild**, *Hon. W. and Jordan*, K. l.c. (263-264).

*Platysphinx* n. gen., *P. phyllis* n. sp. W. Africa. **Rothschild**, *Hon. W. and Jordan*, K. l.c. (224-227).

*Poliana* n. gen., *P. micra* n. sp. Africa. **Rothschild**, *Hon. W. and Jordan*, K. l.c. (38-39, 809).

*Poliodes* n. gen., *P. roseicornis* n. sp. East Africa. **Rothschild**, *Hon. W. and Jordan*, K. l.c. (285-286).

*Polynychus* nn. spp. **Rothschild**, *Hon. W. and Jordan*, K. l.c. (237-262, 810).

——— *grayi*, larva, pupa. **Fawcett**, J. M. London, *Trans. Zool. Soc.*, 17, 1903, (174, pl. VII, figs. 2-5).

*Prædora* n. gen., *P. marshalli*, *P. plagiata*, *P. leucophaea* nn. spp. Africa. **Rothschild**, *Hon. W. and Jordan*, K. Nov. Zool., *Tring*, 9, Supplement, 1903, (50-52, pl. V, XII, LXVI).

*Proserpinus* *juanita*: *oslari* n. subsp. Arizona. **Rothschild**, *Hon. W. and Jordan*, K. l.c. (610).

*Protaleuron* n. gen., *P. rhodogaster* n. sp. South America. **Rothschild**, *Hon. W. and Jordan*, K. l.c. (392-393).

*Protambulyx* n. gen., *P. euryalus*, *P. ochendani*, *P. goeldii*, *P. carteri* nn. spp. **Rothschild**, *Hon. W. and Jordan*, K. l.c. (174-180).

*Protoparce* nn. spp. nn. subsp. Costa Rica. **Rothschild**, *Hon. W. and Jordan*, K. l.c. (74, 77-94).

——— *contolculi*. **Theinert**, B. *Ent. Zs.*, Guben, 16, (1902-1903), 1903, (86-87).

*Pseudoclanis* *karschi* n. sp., *P. postica*: *occidentalis* n. subsp. Africa. **Rothschild**, *Hon. W. and Jordan*, K. Nov. Zool., *Tring*, 9, Supplement, 1903, (220-222).

*Pseudodolb'na aequalis* n. sp. Assam. **Rothschild**, *Hon. W. and Jordan*, K. l.c. (101).

*Pailogramma* n. gen. Oriental Region. **Rothschild**, *Hon. W. and Jordan*, K. l.c. (42).

*Regia* n. gen., type *torenia*. **Tutt**, J. W. *Ent. Rec.*, London, 15, 1903, (101).

*Rethera* n. gen. Western Asia. **Rothschild**, *Hon. W. and Jordan*, K. Nov. Zool., *Tring*, 9, Supplement, 1903, (547).

*Rhagastis* n. gen., *R. confusa* n. sp. *R. lunata*: *sikhimensis*, *R. albomarginatus*: *everetti* nn. subsp. **Rothschild**, *Hon. W. and Jordan*, K. l.c. (791, 795-799).

*Rhodafra* n. gen., *R. marshalli* n. sp. South Africa. **Rothschild**, *Hon. W. and Jordan*, K. l.c. (740-741).

*Rhodoprasina* n. gen. North India. **Rothschild**, *Hon. W. and Jordan*, K. l.c. (292-293).

*Rhyncholaba* n. gen. **Rothschild**, *Hon. W. and Jordan*, K. l.c. (789).

*Sichia* n. gen., type *quercus*. **Tutt**, J. W. *Ent. Rec.*, London, 15, 1903, (42).

*Smerinthulus* nn. spp. **Rothschild**, *Hon. W. and Jordan*, K. l.c. (301-302).

*Smerinthus* *populi* L. ab. *decorata*. **Schultz**, O. *Berliner ent. Zs.*, 47, 1902, [1903], (288).

*Sphinx atropos*. **Leverkühn**, P. *Ornith. Monatschr.*, Gera, 28, 1903, (294-297).

——— *contolculi* L., *glandis salivares*. **Bordas**, L. *Paris, C.-R. soc. biol.*, 55, 1903, (141-143).

——— *luciosa* var. *una* n. var. **Skinner**, H. *Philadelphia, Pa., Ent. News Acad. Nat. Sci.*, 14, 1903, (168).

*Synoecha* n. gen. Queensland. **Rothschild**, *Hon. W. and Jordan*, K. Nov. Zool., *Tring*, 2, Supplement, 1903, (157).

*Temnora* nn. spp. Africa. **Rothschild**, *Hon. W. and Jordan*, K. l.c. (568, 571-584, 811).

*Temnoripais* n. gen. Madagascar. **Rothschild**, *Hon. W. and Jordan*, K. l.c. (585).

*Tetrachroa* n. gen. Australia. **Rothschild**, *Hon. W. and Jordan*, K. l.c. (156).

*Thamnoecha* n. gen. N. W. India. **Rothschild**, *Hon. W. and Jordan*, K. l.c. (153).

*Theretra incarnata* n. sp., nn. subsp.  
**Rothschild**, *Hon. W. and Jordan*, K.  
l.c. (770, 781, 787-788).

*Tinos'oma* n. gen. Sandwich Islands.  
**Rothschild**, *Hon. W. and Jordan*, K.  
l.c. (497-498).

*Trogolegnum* n. gen. Mexico. **Rothschild**, *Hon. W. and Jordan*, K. l.c. (187).

*Turneria* n. gen., type *hippophaes*.  
**Tutt**, J. W. *Ent. Rec.*, London, 15,  
1903, (76).

*Xanthopan* n. gen. Africa. **Rothschild**, *Hon. W. and Jordan*, K. *Nov. Zool., Tring*, 9, Supplement, 1903, (30-31).

*Xylophanes* nn. spp., nn. nomm.  
**Rothschild**, *Hon. W. and Jordan*, K.  
l.c. (686-706).

#### COCYTIIDAE.

*Deilemema*, Hubner, old and new species. **Swinhoe**, C. London, *Trans. ent. Soc.*, 1903, (53-84, pls. III, IV).

—— *sangira* n. nom. for *D. distincta*. **Swinhoe**, C. *Ann. Mag. Nat. Hist.*, London, (Ser. 7), 12, 1903, (193).

#### NOTODONTIDAE.

*Anthena consanguinea* n. sp. **Distant**, W. L. *Insecta transvaaliensia*, Pt. IV, (92).

*Antisyra rufotittata* n. sp. Congo. **Aurivillius**, C. *Entomol. Tidskr.*, Stockholm, 22, 1901, (113-128).

*Baseera amydra* n. sp. Australia. **Turner**, A. J. Sydney, N.S.W., *Proc. Linn. Soc. N. S. Wales*, 23, 1903, (74).

*Corma mirifica* n. sp. Siam. **Swinhoe**, C. *Ann. Mag. Nat. Hist.*, London, (Ser. 7), 11, 1903, (500).

*Destolmia lineata* Walker, larvae and pupae. **Goudie**, D. *Vict. Nat.*, Melbourne, 19, 1903, (132); 20, 1903, (42).

*Discophlebia blosyroides* n. sp. Australia. **Turner**, A. J. Sydney, N.S.W., *Proc. Linn. Soc. N. S. Wales*, 23, 1903, (67).

*Enomodes* n. gen., for *E. sagittaria*, Luc, Australia. **Turner**, A. J. Sydney,

N.S.W., *Proc. Linn. Soc. N. S. Wales*, 23, 1903, (69).

*Gallaba ochropepla* n. sp. Australia. **Turner**, A. J. l.c. (69).

*Gargetta acarodes* n. sp. Australia. **Turner**, A. J. l.c. (71).

*Haplozana* n. gen., *H. nigrolineata* n. sp. Congo. **Aurivillius**, C. *Entomol. Tidskr.*, Stockholm, 22, 1901, (113-128).

*Hemiceras egregia* n. sp. Ecuador. **Dognin**, P. Bruxelles, *Ann. Soc. ent. Belgique*, 45, 1901, (176).

*Hyleora dilucida* Felder, larvae and pupae. **Goudie**, D. *Vict. Nat.*, Melbourne, 19, 1903, (170-171).

*Notodonta tiefi* n. sp. Ural. **Bartel**, M. D. *ent. Zs.* Iris, Berlin, 15, (1902), 1903, (183-230).

*Paradiastoma* n. gen., *P. nigrocincta* n. sp. Congo. **Aurivillius**, C. *Entomol. Tidskr.*, Stockholm, 22, 1901, (113-128).

*Pheraspis* n. gen., *P. poliozuxtha*, *P. mesotypa*, *P. spodea* nn. spp. Australia. **Turner**, A. J. Sydney, N.S.W., *Proc. Linn. Soc. N. S. Wales*, 23, 1903, (61).

*Pheressaces* n. gen., *P. spirucha* n. sp. Australia. **Turner**, A. J. l.c. (57).

*Polienus* n. gen., *P. modestus* n. sp. **Distant**, W. L. *Insecta transvaaliensia*, Pt. IV, (93-94).

*Pydna hungada* n. sp. S. Java. **Swinhoe**, C. *Ann. Mag. Nat. Hist.*, London, (Ser. 7), 11, 1903, (504-505).

—— *postrubra* n. sp. Sumatra. **Swinhoe**, C. l.c. 12, (199).

*Rosema* nn. spp. S. America. **Druce**, H. *Ann. Mag. Nat. Hist.*, London, (Ser. 7), 11, 1903, (199).

—— *dealbata* n. sp. Ecuador. **Dognin**, P. Bruxelles, *Ann. Soc. ent. Belgique*, 45, 1901, (309).

*Stauropus* (?) *euryacia* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., *Trans. R. Soc.*, 27, 1903, (27-74).

—— *fagi*, *Raupa*, *slavogti*, B. *Soc. Entomol.*, Zürich, 16, 1902, (185-186).

*Teleclita* n. gen., *T. cydista* n. sp. Australia. **Turner**, A. J. Sydney, N.S.W., *Proc. Linn. Soc. N. S. Wales*, 23, 1903, (53).

*Themerastis* n. gen., *T. celaena* n. sp.  
Australia. **Turner**, A. J. l.c. (63).

*Turnasa subcarnea* n. sp. British  
New Guinea. **Warren**, W. Nov. Zool.,  
Tring, 10, 1903, (120).

### SESIIDAE.

*Albuna beutenmülleri* n. sp. **Skinner**, H.  
Philadelphia, Pa., Ent. News Acad.  
Nat. Sci., 14, 1903, (126).

*Bembecia marginata* in New Mexico.  
**Cockerell**, T. D. A. l.c. 13, 1902, (100-101).

*Euhagena nebraskae*. New Mexico.  
**Cockerell**, T. D. A. l.c. (303). Correction,  
*ib.* 14, 1903, (29).

*Sannina exilis*a, general ethology.  
**Marlatt**, C. L. Washington, D.C., Cir.  
U. S. Dept. Agric. Div. Ent., No. 54,  
1903, (6) 23.5 cm.

*Sanninoidea opalescens*. **Woodworth**,  
C. W. Agric. Exp. Sta., California,  
Berkeley, Bull., No. 143, 1902, (15, with  
7 figs.). 23 cm.; [review], Washing-  
ton, D.C., U. S. Dept. Agric. Off. Exp.  
Sta., Rec., 14, 1903, (468-469).

*Sesia*, Aufsuchen der Raupen.  
**Grunack**, A. Ent. Zs., Guben, 16,  
(1902-03), 1902, (37-38).

— *annellata* Z. **Prins**. Wien,  
JahrBer. Entom. Ver., 11, (1900), 1901,  
(109-112).

— *empiformis* Esp. var.,  
*hungarica mibi* n. var. **Tomola**. l.c.  
12, (1901), 1902, (13-16).

— *jakuta* n. sp. Lena-Ex-  
pedition. **Herz**, O. Ofvers. F. Vet.  
Soc., Helsingfors, 45, [No. 15], 1902-  
1903, (1-22).

— *tantalus: clavipes* n. subsp.  
Central America. **Rothschild**, Hon. W.  
and **Jordan**, K. Nov. Zool., Tring, 9,  
Supplement, 1903, (436).

### SYNTOMIDAE.

#### GENERAL.

**Schrottky**, C. Beitrag zur Kenntniss  
der Syntomiden Argentinians. D. ent.  
Zs. Iris, Berlin, 15, 1902, (133-136).

#### SPECIAL.

*Argyrocydes lydia* n. sp. Brazil.  
**Druce**, H. Ann. Mag. Nat. Hist.,  
London, (Ser. 7), 11, 1903, (197).

*Cosmosoma* nn. spp. S. America.  
**Dognin**, P. Bruxelles, Ann. Soc. ent.  
Belgique, 46, 1902, (226).

*Cyanopepla girardi* n. sp. Amérique  
du Sud. **Dognin**, P. l.c. (229).

*Diptilon sylpha* n. sp. Amérique du  
Sud. **Dognin**, P. l.c. (228).

*Epitoxis* nn. spp. Africa. **Hampson**,  
Sir G. F. Ann. Mag. Nat. Hist., Lon-  
don, (Ser. 7), 11, 1903, (339-340).

*Eressa xanthostacta* n. sp. Queens-  
land. **Hampson**, Sir G. F. l.c. (339).

*Eucereon papayanum* n. sp. Amérique  
du Sud. **Dognin**, P. Bruxelles, Ann.  
Soc. ent. Belgique, 46, 1902, (229).

*Euchromia vitiensis* n. sp. Fiji.  
**Hampson**, Sir G. F. Ann. Mag. Nat.  
Hist., London, (Ser. 7), 11, 1903, (340-  
341).

*Eurota tisamena* n. sp. Amérique du  
Sud. **Dognin**, P. Bruxelles, Ann. Soc.  
ent. Belgique, 46, 1902, (227).

*Hyaleucerea picticeps* n. sp. Brazil.  
**Hampson**, Sir G. F. Ann. Mag. Nat.  
Hist., London, (Ser. 7), 11, 1903, (341).

*Iseanthrene joda* n. sp. Peru. **Druce**,  
H. l.c. (196).

*Mesolasia hamptoni* n. sp. Amérique  
du Sud. **Dognin**, P. Bruxelles, Ann.  
Soc. Ent. Belgique, 46, 1902, (228).

*Phocnicoprocta chamboni* n. sp.  
Amérique du Sud. **Dognin**, P. l.c. (473).

*Pseudomya ochreiventris* n. sp.  
Amérique du Sud. **Dognin**, P. l.c. (227).

*Sarosa epona* n. sp. S. America.  
**Dognin**, P. l.c. (226).

*Saurita bicolor* n. sp. Amérique du  
Sud. **Dognin**, P. l.c. (227).

— *cryptoleuca* n. sp. Brazil.  
**Hampson**, Sir G. F. Ann. Mag. Nat.  
Hist., London, (Ser. 7), 11, 1903, (340).

*Sciopsyche remissa* n. sp. Amérique  
du Sud. **Dognin**, P. Bruxelles, Ann.  
Soc. Ent. Belgique, 46, 1902, (229).

*Sphecosoma nigriceps* n. sp. Bolivia.  
**Hampson**, Sir G. F. Ann. Mag. Nat.  
Hist., London, (Ser. 7), 11, 1903, (340).

*Syntomeida austera* n. sp. Amérique du Sud. **Dognin**, P. Bruxelles, Ann. Soc. Ent. Belgique, **46**, 1902, (226-233, 235-350, 473-480).

*Syntomis* nn. spp. **Hampson**, Sir G. F. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (338-339).

*Teucer brunnea* n. sp. Argentina. **Hampson**, Sir G. F. l.c. (341).

*Trichaeta* nn. spp. **Hampson**, Sir G. F. l.c. (337-338).

## ZYGAENIDAE.

## GENERAL.

**Dziurzynski**, C. Neue Zygaenen-Aberrationen, nebst kleinen Bemerkungen über bereits bekannte Aberrationen. D. ent. Zs. Iris, Berlin, **15**, (1902), 1903, (335-338).

**Piepers**, M. C. et **Snellen**, P. C. T. Enumération [des Zygaenidae] de Java. 's Gravenhage, Tijdschr. Ent., **45**, 1903, (151-242, av. 3 pl.).

## SPECIAL.

*Anomocotes nox* n. sp. Congo. **Aurivillius** C. Entomol. Tidskr., Stockholm, **22**, 1901, (113-128).

*Arichalca elegans* n. sp. Afrika. **Weymer**, G. D. ent. Zs. Iris, Berlin, **16**, 1903, (221-235).

*Brachartona* nn. spp. Java, **Piepers**, M. C. et **Snellen**, P. C. T. 's Gravenhage, Tijdschr. Ent., **45**, 1903, (234-236, pl. XV, figs. 8-10).

*Doropteryx xanthomelas* n. sp. Angola. **Rothschild**, Hon. W. and **Jordan**, K. Nov. Zool., Tring, **10**, 1903, (484, pl. XI).

*Ephemeroidea virescens* n. sp. Java. **Piepers**, M. C. et **Snellen**, P. C. T. 's Gravenhage, Tijdschr. Ent., **45**, 1903, (222, pl. XVIII, Fig. 11, pl. XV, figs. 4-5).

*Heterusia* nn. spp. New Guinea. **Rothschild**, Hon. W. and **Jordan**, K. Nov. Zool., Tring, **10**, 1903, (483-484, pl. XII).

*Hydrothauma ada* nn. subspp. Malay Archipelago. **Rothschild**, Hon. W. and **Jordan**, K. l.c. (483, pl. XII).

*Illiberis discoidalis* n. sp. Tonkin. **Swinhoe**, C. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (500).

*Isearta aspasia* n. sp. Java. **Piepers**, M. C. et **Snellen**, P. C. T. 's Gravenhage, Tijdschr. Ent., **45**, 1903, (183; pl. XIV, fig. 3, pl. XIII, fig. 2).

*Pseudonyctemera* n. gen. for *Milleria ficta* Butl., *Leptosoma marginale* Sm, *arcuatum* Sn. and *Chalcosia decipiens*. Java. **Piepers**, M. C. et **Snellen**, P. C. T. l.c. (210).

*Tryphanophora* nn. spp. Java. **Piepers**, M. C. et **Snellen**, P. C. T. l.c. (218-220, pl. XIII, fig. 10, pl. XV, figs. 1-3).

*Zygaena*, einige merkwürdige Formen aus der Bukowina. **Hormuzaki**, C. von. Soc. Entomol., Zürich, **17**, 1902, (137-139).

— *angelicae* O. **Dziurzynski**, Wien, JahrBer. Entom. Ver., **11**, (1900), 1901, (117).

— *carniolica* Sc. **Wagner**, F. Insektenbörse, Leipzig, **20**, 1903, (29).

— *ephialtes*. **Hanfeld**. Berliner ent. Zs., **48**, 1903, ((25)-(26), (28)).

— *fausta* n. var. **Krüger**. l.c. ((24)-(25)).

— *ochsenheimeri* (Selbständige Art. Ferner Hybrid von *Z. minos* ♀ and *Syntomis phegea* ♂). **Döleschall**, H. Soc. Entomol., Zürich, **17**, 1902, (121).

— *rosinae* n. sp. **Korb**, M. D. ent. Zs. Iris, Berlin, **15**, (1902), 1903, (326-327).

## PSYCHIDAE.

*Chalia künckelii* n. sp. République Argentine. **Heylaerts**, F. J. Bruxelles, Ann. Soc., Belgique, **45**, 1901, (97).

*Epichnopteryx pulla* var. *volkeri* n. var. **Trautmann**, W. Ent. Zs., Guben, **16**, (1902-03), 1903, (78-79).

## COSSIDAE.

*Cossus*. . . **Rebel**, H. Wien, Verh. Zool. Bot. Ges., **51**, 1901, (798-804).

— *aries* n. sp. Palaestina. **Füngeler**, R. D. ent. Zs. Iris, Berlin, **15**, 1903, (143-146).

*Holocera pancratia* n. sp. Afrika.  
Weymer, G. l.c. 16, 1903, (221-235).

*Xyleutes* nn. spp. Queensland. Roth-  
schild, Hon. W. Nov. Zool., Tring, 10,  
1903, (306-308).

— nn. spp. Australia.  
Turner, A. J. Adelaide, S. Aust., Trans.  
R. Soc., 27, 1903, (1-26).

#### ARBELIDAE.

*Catarbela* n. gen., *C. strigosa* n. sp.  
West. Afrika. Aurivillius, C. Entomol.  
Tidskr., Stockholm, 22, 1901, (114-128).

*Marshalliana* n. gen., *M. bivitata* n. sp.  
Mashuna. Aurivillius, C. l.c. (113-  
128).

*Metarbela* (?) *umtaliana* n. sp.  
Mashuna. Aurivillius, C. l.c. (113-  
128).

#### CHRYSOPOLOMIDAE.

*Chrysopoloma flaviceps* n. sp.  
Mashuna. Aurivillius, C. Entomol.  
Tidskr., Stockholm, 22, 1901, (113-  
128).

*Phasicneus* nn. spp. Distant,  
W. L. Insecta transvaaliensis, Pt. IV,  
(84).

#### HEPIALIDAE.

*Charagia virecens*, Dbl. Quail.  
Wellington, Trans. N. Zeal., Inst., 35,  
1903, (249-255).

*Dalaca sladeni* n. sp. South  
America. Heron, F. A. and Hampson,  
Sir G. F. London, Proc. Zool. Soc.,  
1903, 2, (280).

#### DREPANIDAE.

*Oreta miltodes* n. sp. Australia.  
Lower, O. B. Adelaide, S. Aust., Trans.  
R. Soc., 27, 1903, (27-74).

— *subvinosa* n. sp. New  
Guinea. Warren, W. Nov. Zool., Tring,  
10, 1903, (255).

*Perophora producta* n. sp. Colombia.  
Dognin, P. Bruxelles, Anr. Soc. ent.,  
Belgique, 45, 1901, (176).

*Phalaera acutipennis* n. sp. Khasia  
Hills. Swinhoe, C. Ann. Mag. Nat.  
Hist., London, (Ser. 7), 11, 1903, (502-  
503).

*Problemsidia ostia* n. sp. Malay  
Peninsula. Swinhoe, C. Fascic. Malay.  
Zool., 1, (59).

*Pyropsyche* n. gen., *P. moncaunella* n.  
sp. Spain. Chapman, T. A. Ent.  
Rec., London, 15, 1903, (324-330).

*Spectrorota* n. gen. Warren, W.  
Nov. Zool., Tring, 10, 1903, (255-  
256).

*Teldenia strigosa* n. sp. New Guinea.  
Warren, W. l.c. (256).

*Tridrepana fultata*, Snell nn. abb.  
New Guinea. Warren, W. l.c. (346-  
347).

*Urogonodes* n. gen. New Guinea.  
Warren, W. Nov. Zool., Tring, 10,  
1903, (347).

#### LIMACODIDAE.

*Echedorus vitreus* n. sp. Merida.  
Dognin, P. Bruxelles, Ann. Soc. ent.,  
Belgique, 45, 1901, (309).

*Sibine pallescens* n. sp. Venezuela.  
Dognin, P. l.c. (309).

*Thosea sybilla* n. sp. Siam. Swinhoe,  
C. Ann. Mag. Nat. Hist., London, (Ser.  
7), 11, 1903, (502).

#### THYRIDIDAE.

*Brizia particolor* n. sp. Solomon  
Islands. Warren, W. Nov. Zool., Tring,  
10, 1903, (256-257).

*Heteroschista* n. gen., *H. nigranalis*  
n. sp. Niger. Warren, W. l.c. (271).

*Margaronia eburnealis* n. sp. Malay  
Peninsula. Swinhoe, C. Fascic. Malay.  
Zool., 1, (105).

— *nitidalis*. Quaintance,  
A. L. Agric. Exp. Sta., Georgia,  
Experiment. Bull., No. 54, 1901, (71-94,  
with 3 pls.); [review], Washington,  
D.C., U. S. Dept. Agric. Off. Exp. Sta.  
Rec., 13, 1902, (871-872).

— *seitralis* n. sp. Hering.  
E. Stettiner ent. Ztg., 64, 1903, (97-  
112).

*Prasinoxena monospila*, Meyr from Khasis, notes. **Hampson**, Sir G. F. Bombay, J. Nat. Hist. Soc., **14**, 1903,

——— *viridissima* n. sp. Malay Peninsula. **Swinhoe**, C. Fascic. Malay. Zool., **1**, (98).

*Rhodoneura capotona* n. sp. Malay Peninsula. **Swinhoe**, C. l.c. (96).

*Striglina* nn. spp. **Warren**, W. Nov. Zool., Tring, **10**, 1903, (257–258).

### LASIOCAMPIDAE.

*Caeculia trilinea* n. sp. Loja. **Dognin**, P. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (306).

*Chilena marshalli* n. sp. Mashuna. **Aurivillius**, C. Entomol. Tidskr., Stockholm, **22**, 1901, (113–128).

*Chondrostega aurivillii* n. sp. Palästina. **Püngeler**, R. D. ent. Zs. Iris, Berlin, **15**, 1902, (143–146, mit 1 Taf.).

*Clisiocampa americana*. **Britton**, W. E. Agric. Exp. Sta., Connecticut, New Haven, Bull., No. **139**, 1902, (12 with 3 pls, 3 figs.). 23 cm.; [review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., **14**, 1902, (371–372).

*Gastropacha pini*, Beschreibung einer abnormen Raupe. **Kolbe**, H. J. Allg. Zs. Ent., Neudamm, **8**, 1903, (1–9, 25–30).

——— **Serebriankov**, A. V. (Russ.) St. Peterburg, Izv. Lén. Inst., **7**, 1901, (29–102, mit 1 Taf.).

——— **Erfahrungszahlen zum Gebrauche bei seiner Bekämpfung**. **Trost**, C. Tharander forstl. Jahrb. **53**, 1903, (92–119).

*Gastroplakocis meridionalis* n. sp. Mashuna. **Aurivillius**, C. Entomol. Tidskr., Stockholm, **22**, 1901, (114–128).

*Hydrias* nn. spp. Venezuela. **Dognin**, P. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (307–308).

*Lasiocampa quercus*, L. **Rocquigny-Adanson**, G. de. Feuille jeunes natural., (sér. 4), **34**, 1903, (19–20).

——— L. var. *sicula* Stmgr. ♂ × var. *alpina* Frey ♀ und

deren Rückkreuzung mit *L. quercus* var. *sicula* Stmgr. **Schultz**, H. Ent. Zs., Guben, **16**, (1903–03), 1903, (94).

*Nadiasa* nn. spp. Mashuna. **Aurivillius**, C. Entomol. Tidskr., Stockholm, **22**, 1901, (113–128).

*Opsirrhina cyclomela* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (183–201).

*Ormiacodes fornax* n. sp. S. America. **Druce**, H. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (198).

——— *nigra* n. sp. Ecuador. **Dognin**, P. Bruxelles, Ann. Soc. ent. Soc., **45**, 1901, (305).

*Poecilocampa populi*, account of the larva. **Douglas**, J. Entomologist, London, **36**, 1903, (13–14).

*Trabala pallida* n. sp. South Africa. **Fawcett**, J. M. London, Trans. Zool. Soc., **17**, 1903, (181).

### LYMANTRIDAE.

*Abynotha* n. gen. **Swinhoe**, C. London, Trans. Ent. Soc., **1903**, (479).

*Anepa* n. gen. Australia. **Swinhoe**, C. l.c. (478).

*Anthela* nn. spp. Australia. **Swinhoe**, C. l.c. (447–453).

*Aroa* nn. spp. **Swinhoe**, C. l.c. (455–457).

*Cobanilla plumbacea* n. sp. Malay Peninsula. **Swinhoe**, C. Fascic. Malay. Zool., **1**, (62).

*Dasychira* nn. spp., n. nom. **Swinhoe**, C. London, Trans. Ent. Soc., **1903**, (467–470).

——— *magnalia* n. sp. Khasia Hills. **Swinhoe**, C. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (198).

*Euproctis* nn. spp., nn. nomm. **Swinhoe**, C. London, Trans. Ent. Soc., **1903**, (396–428).

——— nn. spp. Balu, Java, Borneo. **Swinhoe**, C. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (194–197).

——— *huntei* n. sp. British New Guinea. **Warren**, W. Nov. Zool., Tring, **10**, 1903, (120).



*Euproctis meeki* n. sp. N. Australia. **Druce**, H. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (222).

———— *pycnadelpha* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (28).

*Ileracula leonina* n. sp. Australia. **Turner**, A. J. l.c. (1-26).

*Heteronygmia chismona* n. sp. Gold Coast. **Swinhoe**, C. London, Trans. Ent. Soc., **1903**, (480).

*Ivela* n. gen. Japan. **Swinhoe**, C. l.c. (388).

*Laelia lavia* n. sp. Brit. E. Africa. **Swinhoe**, C. l.c. (443).

*Leucoma* nn. spp. **Swinhoe**, C. l.c. (379-384).

*Lomadonta johnstoni* n. sp. Congo. **Swinhoe**, C. London, Trans. Ent. Soc., **1903**, (480).

*Lymantria* nn. spp., n. nom. **Swinhoe**, C. l.c. (483-495).

———— *monacha*, ravages committed in Sweden by. **Bengtsson**, S. (Swedish) Entomol. Tidskr., Stockholm, **22**, 1901, (145-157).

*Lysarix monarcha*. **Metzger**, C. Berlin, Mitt. D. Landw.Ges., **18**, 1903, Beilage, (39-48, mit 1 Karte).

*Marbla* n. gen. **Swinhoe**, C. London, Trans. Ent. Soc., **1903**, (436).

*Olene montana* n. sp. North Carolina. **Beutenmüller**, W. New York, N.Y., Bull. Amer. Mus. Nat. Hist., **19**, 1903, (585-586). Separate. 24.5 cm.

*Orgyia*, the European spp. Specialisation in habits and structure. **Chapman**, T. A. Ent. Rec., London, **15**, 1903, (169-171, with pls.).

———— nn. spp. **Swinhoe**, C. London, Trans. Ent. Soc., **1903**, (459-460).

———— *aurolimbata* Gn. at Begar. **Chapman**, T. A. Ent. Rec., London, **15**, 1903, (113-118, pls. IV, V).

———— *nigriplaga* n. sp. N. Borneo. **Swinhoe**, C. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (194).

———— *splendida*, notes. **Dollman**, J. C. Ent. Rec., London, **15**, 1903, (283-284).

*Pantana semilucida* n. nom. **Swinhoe**, C. London, Trans. Ent. Soc., **1903**, (439).

*Pirga magna* n. sp. British S. Africa. **Swinhoe**, C. l.c. (436).

*Porthesia* nn. spp. **Swinhoe**, C. l.c. (393-395).

———— *rebeli* n. sp. **Haberhaner**, J. Soc. Entomol., Zürich, **17**, 1902, (82).

*Rajacoa* n. gen., type *Cypra forbesi* **Druce**. **Swinhoe**, C. London, Trans. Ent. Soc., **1903**, (434-435).

———— *antra* n. sp. Humboldt Bay. **Swinhoe**, C. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (194).

*Sapelia* n. gen., *S. limpida*, *S. flavipectus* nn. spp. West Africa. **Swinhoe**, C. London, Trans. Ent. Soc., **1903**, (388-390).

*Stracena* n. gen., *S. fuscivena* n. sp. West Africa. **Swinhoe**, C. l.c. (388-389).

## HYPSIDAE.

### GENERAL.

**Dudgeon**, G. C., **Elwes**, H. J. and **Hampson** Sir G. [Moths of the family *Hypsiidae* found at Sikkin and Bhutan.] Bombay, J. Nat. Hist. Soc., **14**, 1903, (761).

### SPECIAL.

*Aganais* nn. spp. **Swinhoe**, C. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (503).

*Asota* nn. spp. **Swinhoe**, C. l.c. (504).

———— *anawa* n. sp. Malay Peninsula. **Swinhoe**, C. Fascic. Malay Zool., **1**, (66).

*Nyctemera manifesta* n. sp. Congo. **Swinhoe**, C. London, Trans. Ent. Soc., **1903**, (434).

## ARCTIIDAE.

### GENERAL.

**Pierce**, F. N. Specific differences in *Lithosidae* as determined by structure of genitalia. Entomologist, London, **36**, 1903, (81-86).

## SPECIAL.

- Acantharctia* nn. spp. **Bartel**, M. D. ent. Zs. Iris, Berlin, **16**, 1903, (194).
- Amastus* nn. spp. Südamerika. **Dognin**, P. Bruxelles, Ann. soc. ent. Belgique, **45**, 1901, (174, 304).
- Amazia flavipuncta* n. sp. Brazil. **Hampson**, Sir G. F. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (351).
- Amphicallia picrognata* n. sp. **Bartel**, M. D. ent. Zs. Iris, Berlin, **16**, 1903, (170-214).
- Anaphosia* n. gen., *A. cyanogramma* n. sp. Mashonaland. **Hampson**, Sir G. F. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (244).
- Anazita sophia* n. sp. Venezuela. **Dognin**, P. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (173).
- Arachnis dilecta*, note. **Dyar**, H. G. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (94).
- Arctia caja* L. ab. **Thiele**. Berliner, ent. Zs., **48**, 1903, ((29)).
- *flavia*, Zucht zwei Generationen. **Tiedemann**, von. Ent. Zs., Guben, **16**, (1902/03), 1902, (9-10, 25-26, 29-30).
- *maculosa* var. *stertzi* n. var. **Schulz**, G. L. D. ent. Zs. Iris, Berlin, **15**, (1902), 1903, (328-329).
- Asura* nn. spp. Siam. **Swinhoe**, C. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (501).
- Automolis* nn. spp. Amérique du Sud. **Dognin**, P. Bruxelles, Ann. Soc. Ent., Belgique, **46**, 1902, (231-232).
- *troias* n. sp. S. America. **Druce**, H. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (197).
- Callidota albiceps* n. sp. Venezuela. **Dognin**, P. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (175).
- *zella* n. sp. United States. **Dyar**, H. G. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (290-298).
- Celama* nn. spp. **Hampson**, Sir G. F. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (341-342).
- Chelonia pudica* Esp., observations. **Brascassat**, M. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (61).
- Chionaema* nn. spp. Assam. **Hampson**, Sir G. F. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (345-347).
- Chrysomesia* n. gen., *C. barbicostata* n. sp. New Guinea. **Hampson**, Sir G. F. l.c. (350).
- Clemensia urucata* n. sp. Amérique du Sud. **Dognin**, P. Bruxelles, Ann. Soc. Ent. Belgique, **46**, 1902, (230).
- Clerckia fulvia*: *trigona* n. subsp. British New Guinea. **Rothschild**, Hon. W. Nov. Zool., Tring, **10**, 1903, (312).
- Cretonotus* nn. spp. **Bartel**, M. D. ent. Zs. Iris, Berlin, **16**, 1903, (170-214).
- Darantasia pervittata* n. sp. New Guinea. **Hampson**, Sir G. F. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (344).
- Devara semidolens* n. sp. S. America. **Druce**, H. l.c. (198).
- Diacrisia euryphlebia* n. sp. Zululand. **Hampson**, Sir G. F. l.c. (351).
- Diaphone angolensis* n. sp. **Weymer**, G. Die Lepidopteren der Kuene-Sambesi-Expedition. Berlin, 1903, (543-559).
- *libertina* n. sp. **Bartel**, M. D. ent. Zs. Iris, Berlin, **16**, 1903, (170-214).
- Earias syriacana* n. sp. **Bartel**, M. l.c. (215-220).
- Epantheria theophila* n. sp. Amérique du Sud. **Dognin**, P. Bruxelles, Ann. Soc. Ent. Belgique, **46**, 1902, (233).
- Elysia insulea* n. sp. Amérique de Sud. **Dognin**, P. l.c. (232).
- Estigmene atropunctata* n. sp. **Fawcett**, J. M. London, Trans. Zool. Soc., **17**, 1903, (179-180).
- Eugoa immunda* n. sp. Siam. **Swinhoe**, C. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (501-502).
- Euprepia pudica*. **Foulquier**, G. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (51).
- ——— **Giard**, A. l.c. (33-34).
- ——— **Stépi**, P. l.c. (51).
- Eurosia fuliginea* n. sp. Natal. **Hampson**, Sir G. F. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (347).

*Gnophria rubricellis* L. aber. *flavicollis* Neubr. **Neuburger**, W. Soc. Entomol., Zürich, **17**, 1903, (155).

*Haploz*, variation. **Merrick**, H. W. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (1-2, with pl.).

*Helionia micra* n. sp. Queensland. **Hampson**, Sir G. F. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (345).

*Hemihyalea erganoides* n. sp. Amérique du Sud. **Dognin**, P. Bruxelles, Ann. Soc. Ent. Belgique, **46**, 1902, (232).

*Idalus veneta* n. sp. Colombia. **Dognin**, P. l.c. **45**, 1901, (175).

*Ilema melasonea* n. sp. British East Africa. **Hampson**, Sir G. F. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (343).

*Illice* nn. spp. South America. **Hampson**, Sir G. F. l.c. (347-348).

*Ischnarctia* n. gen. (~ *Utetheisa*), *I. brunescens* n. sp. **Bartel**, M. D. ent. Zs. Iris, Berlin, **16**, 1903, (206-207).

*Lexis minima* n. sp. New Guinea. **Hampson**, Sir G. F. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (342).

*Lithosia deplana* Esp. var. *unicolor* n. var. **Banks**, E. M. Ent. Mag., London, **39**, 1903, (56-57).

— *grisea* ab. *pallifrons* n. ab. **Fuchs**, A. Soc. Entomol., Zürich, **18**, 1903, (73).

*Metareva* nn. spp. Amérique du Sud. **Dognin**, P. Bruxelles, Ann. Soc. ent., Belgique, **46**, 1902, (220-230).

*Micrilema* n. gen., *M. craushayi* n. sp. Basutoland. **Hampson**, Sir G. F. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (343).

*Nemophila noctuella*. **Adkin**, R. E. Entomologist, London, **36**, 1903, (274-276).

*Nola acutula* n. sp. Centralasien. **Püngeler**, R. D. ent. Zs. Iris, Berlin, **15**, 1902, (147-160).

— *crambiformis* n. sp. Ural. **Bobel** in **Bartel**, M. l.c. (183-230).

— *lauta* n. sp. Siam. **Swinhoe**, C. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (502).

— *tigranula* n. sp. **Püngeler**, R. D. ent. Zs. Iris, Berlin, **15**, 1902, (141-142, mit 1 Taf.).

*Opharus flavicostata* n. sp. **Dognin**, P. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (175).

— *melas* n. sp. Amérique du Sud. **Dognin**, P. l.c. **46**, 1902, (232).

*Ovipennis binghami* n. sp. Upper Burma. **Hampson**, Sir G. F. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (349).

*Parasiceia perirrorata* n. sp. W. China. **Hampson**, Sir G. F. l.c. (349).

*Pericallia accensa* n. sp. Sumatra. **Swinhoe**, C. l.c. **12**, (193-194).

*Phaeoptera genoveva* n. sp. Venezuela. **Dognin**, P. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (173).

*Phragmantobia viridis* n. sp. South America. **Druce**, H. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (222).

*Phryganidia californica*, life history. **Letcher**, B. New York, N.Y., J. Ent. Soc., **11**, 1903, (125-127).

*Phyrganopsis atrescens* n. sp. Cape Colony. **Hampson**, Sir G. F. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (343).

*Pleretes (Pericallia) matronula*, Zucht. **Hoffmann**, C. Ent. Zs., Guben, **16**, (1902-03), 1902, (30-31).

*Prinasura* n. gen., *P. pyrrhoepanma* n. sp. New South Wales. **Hampson**, Sir G. F. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (349-350).

*Prumala ignipicta* n. sp. Brazil. **Hampson**, Sir G. F. l.c. (350-351).

*Rhodogastria* nn. spp. **Bartel**, M. D. ent. Zs. Iris, Berlin, **16**, 1903, (208-209).

*Roeselia infusata* n. sp. Mashonaland. **Hampson**, Sir G. F. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (342).

*Scaptosyle fovealis* n. sp. New Guinea. **Hampson**, Sir G. F. l.c. (345).

*Spilosoma* nn. spp. Afrika. **Bartel**, M. D. ent. Zs. Iris, Berlin, **16**, 1903, (173-193).

*Stictane apicalis* n. sp. W. Africa. **Hampson**, Sir G. F. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (344).

*Teraotona* nn. spp. **Bartel**, M. D. ent. Zs. Iris, Berlin, **16**, 1903, (199-214).

*Zygaenopsis rubiana* n. sp. Solomon Islands. **Rothschild**, Hon. W. Nov. Zool., Tring, **10**, 1903, (312).

## CYLLOPODIDAE.

*Flavinia superba* n. sp. Peru. **Druce**, H. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (197).

## AGARISTIDAE.

## GENERAL.

**Dudgeon**, G. C., **Elwes**, H. J. and **Hampson**, Sir G. [Notes on Moths of the family Agaristidae, found at Sikkim and Bhutan.] Bombay, J. Nat. Hist. Soc., **14**, 1903, (762).

## SPECIAL.

*Argyrolepidia aurea* n. sp. British New Guinea. **Jordan**, K. Nov. Zool., Tring, **10**, 1903, (315).

———— *unimaculata* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (29).

*Burgena reducta* n. sp. Solomon Islands. **Rothschild**, Hon. W. and **Jordan**, K. Nov. Zool., Tring, **10**, 1903, (487).

*Cruria* nn. spp. Australia. **Bower**, O. B. Adelaide, S. Aust. Trans. R. Soc., **27**, 1903, (27-74).

———— *synopla* n. sp. Australia. **Turner**, A. J. l.c. (1-26).

*Immetalia* nn. spp. New Guinea. **Rothschild**, Hon. W. and **Jordan**, K. Nov. Zool., Tring, **10**, 1903, (466, pl. XII).

*Phalaenoides resplendens* n. sp. New Guinea. **Rothschild**, Hon. W. and **Jordan**, R. l.c. (487, pl. XII).

*Serobigera vacillans*: *taeniata* n. subsp. Celebes. **Rothschild**, Hon. W. and **Jordan**, K. l.c. (487, pl. XII).

## GEOMETRIDAE.

## GENERAL.

**Fuchs**, A. Beiträge zur Kenntnis der Lepidopteren-Fauna von Sumatra. Erste Besprechung: Neue Geometriden. Wies-

baden, Jahrb. Ver. Natk., **55**, 1902, Abt. II, (81-91).

**Grote**, R. A. Nachtrag zu dem Aufsätze „Geometridengattungsnamen“, Ins. Börse XIX Jg. 1902. Insektenbörse, Leipzig, **20**, 1903, (85).

**Prout**, L. B. Notes on Spanish Geometrides, collected by Dr. Chapman in 1902. Ent. Rec., London, **15**, 1903, (96-98).

———— Some Geometrides collected by Paymaster-in-Chief Gervase F. Mathew, R.N., on the Mediterranean, &c. Entomologist, London, **36**, 1903, (204-206).

## SPECIAL.

*Abrazas grossulariata*, die Zeichnungs-Variabilität. **Schröder**, C. Allg. Zs. Ent., Neudamm, **8**, 1903, (105-119, 145-157, 177-194, 228-234).

———— *sylvata*: *continuata* n. ab. Japan. **Warren**, W. Nov. Zool., Tring, **10**, 1903, (269).

*Acidalia* nn. spp. Sumatra. **Fuchs**, A. Wiesbaden, Jahrb. Ver. Natk., **55**, 1902, Abt. II, (81-91).

———— nn. spp. Lena-Expedition. **Hers**, O. Ofvers. F. Nat. Soc., Helsingfors, **45**, [No. 15], 1902-1903, (1-22).

———— nn. spp. Kashmir and Sikkim. **Hampson**, G. F. Bombay, J. Nat. Hist. Soc., **14**, 1903, (650-651, pl. C, fig. 13).

———— *lucellata* n. sp. Central-asien. **Püngeler**, R. D. ent. Zs. Iris, Berlin, **15**, 1902, (147-160).

———— *rufaria*, Hubn. Central Asia and Kashmir. *A. aquisinuatata*, Wan. Bhutan and Khasia. *A. indeterminata*, Wan. Simla and Tibet. Notes on the species, and 6 nn. spp. from Kashmir, Cuddapah and Sikkim. **Hampson**, Sir G. F. Bombay, J. Nat. Hist. Soc., **14**, 1903, (649-651).

———— *subcineta* n. sp. Colombia. **Dognin**, P. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (179).

*Acrotomodes cretinotata* n. sp. Amérique du Sud. **Dognin**, P. l.c. **46**, 1902, (341).

*Adeta* n. gen., *A. semifascia* n. sp. New Guinea. **Warren**, W. Nov. Zool., Tring, **10**, 1903, (377).

*Aechros'oma* n. gen., *A. marmorata* n. sp. New Guinea. **Warren, W. l.c.** (372).

*Agathia* nn. spp. New Guinea. **Warren, W. l.c.** (353-354).

*Alcis* nn. spp., nn. varr. New Guinea. **Warren, W. l.c.** (388-389).

*Anapalta aurifera* n. sp. New Guinea. **Warren, W. l.c.** (373).

*Angelia* n. gen., *A. tephrochroa*, *A. callisarca* nn. spp. Australia. **Lower, O. B. Adelaide, S. Aust., Trans. R. Soc., 27, 1903, (183-201).**

*Angeronia prunaria*, notes on breeding. **Pickett, C. P. Ent. Rec., London, 15, 1903, (141-149).**

*Aniserpates* n. gen., *A. purpureoviridis*, *A. sordida* nn. spp. New Guinea. **Warren, W. Nov. Zool., Tring, 10, 1903, (378).**

*Anisocolpia aroensis* n. sp. New Guinea. **Warren, W. l.c.** (382).

*Anisodes aequalipunctata* n. sp. Ecuador. **Dognin, P. Bruxelles, Ann. Soc. ent. Belgique, 45, 1901, (176).**

— *marginipunctata* n. sp. Amérique du Sud. **Dognin, P. l.c. 46, 1902, (344).**

— *suspiciaria*, **Snell, A. similaria** Wlk. from Ceylon, notes. **Hampson, Sir G. F. Bombay, J. Nat. Hist. Soc., 14, 1903, (639-659).**

*Anisogamia* nn. spp. New Guinea. **Warren, W. Nov. Zool., Tring, 10, 1903, (354-355).**

— *albifimbria* n. sp. Solomon Islands. **Warren, W. l.c.** (262).

*Anisoperas proxima* n. sp. Amérique du Sud. **Dognin, P. Bruxelles, Ann. Soc. ent. Belgique, 46, 1902, (339).**

*Anisopteryx*. **Weed, C. M. Agric. Exp. Sta., New Hampshire, Durham, Bull., No. 85, 1901, (69-76, with 5 figs.); [review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta., Rec., 13, 1902, (873).**

*Anosiodes* n. gen., *A. hybrida* n. sp. New Guinea. **Warren, W. Nov. Zool., Tring, 10, 1903, (412-413).**

*Antarchia* n. gen., *A. subrubescens* n. sp. New Guinea. **Warren, W. l.c.** (407).

*Anticlea subcaesia* n. sp. New Guinea. **Warren, W. l.c.** (373-374).

*Aplochloa fallax* n. sp. Solomon Islands. **Warren, W. l.c.** (268).

*Arycanda* nn. spp., n. ab. New Guinea. **Warren, W. l.c.** (385-387).

*Aspilates albaria* n. sp. Ural. **Bartel, M. D. ent. Zs. Iris, Berlin, 15, (1902), 1903, (183-230).**

*Atheniodes* n. gen., *A. argentiplumbea*, Tibet; *A. polycymaria*, "India" nn. spp. **Hampson, Sir G. F. Bombay, J. Nat. Hist. Soc., 14, 1903, (647, 648).**

*Bapta bimaculata* F. var. et ab. *bipunctata* Fuchs. **Fuchs, A. Soc. Entomol., Zürich, 18, 1903, (43).**

— *pulverulenta* n. sp. Amérique du Sud. **Dognin, P. Bruxelles, Ann. Soc. ent. Belgique, 46, 1902, (341).**

*Boarmia lioptilaria* n. sp. Malay Peninsula. **Swinhoe, C. Fascic. Malay. Zool., 1, (91).**

— *marcentaria* n. sp. Centralasien. **Püngeler, R. D. ent. Zs. Iris, Berlin, 15, 1902, (147-160).**

— *xylotrema* n. sp. Australia. **Lower, O. B. Adelaide, S. Aust., Trans. R. Soc., 27, 1903, (27-74).**

*Bonatea undilinea* n. sp. Amérique du Sud. **Dognin, P. Bruxelles, Ann. Soc. ent. Belgique, 46, 1902, (478).**

*Bordeta floridula* n. sp. Solomon Islands. **Warren, W. Nov. Zool., Tring, 10, 1903, (269).**

— *furcata* n. sp. New Guinea. **Rothschild, Hon. W. and Jordan, K. l.c. (486, pl. XII).**

*Brachyglene divisa* n. sp. Amérique du Sud. **Dognin, P. Bruxelles, Ann. Soc. ent. Belgique, 46, 1902, (474).**

*Calamodes lignaria* n. sp. Angola. **Warren, W. Nov. Zool., Tring, 10, 1903, (275).**

*Calletaera ansorgei* n. sp. Niger. **Warren, W. l.c.** (275-276).

*Calceulype* n. gen. **Warren, W. l.c.** (264).

*Calospila (?) siderata* n. sp. Bolivia. **Dognin, P. Bruxelles, Ann. Soc. ent. Belgique, 45, 1901, (184).**

*Calyptocome incarnata* n. sp. Amérique du Sud. **Dognin, P. l.c. 46, 1902, (345).**

*Cambogia ingrataria*, Warr., Khasis, notes. **Hampson**, Sir G. F. Bombay, J. Nat. Hist. Soc., **14**, 1903, (647).

*Capasa bifurcata* n. sp. New Guinea. **Warren**, W. Nov. Zool., Tring, **10**, 1903, (408).

*Carpella marginata* n. sp. Amérique du Sud. **Dognin**, P. Bruxelles, Ann. Soc. ent. Belgique, **46**, 1902, (478).

*Casbia albinotata* n. sp., n. ab. New Guinea. **Warren**, W. Nov. Zool., Tring, **10**, 1903, (401-402).

*Catoria canidentata* n. sp. Amérique du Sud. **Dognin**, P. Bruxelles, Ann. Soc. ent. Belgique, **46**, 1902 (480).

*Celerena* nn. spp. New Guinea. **Warren**, W. Nov. Zool., Tring, **10**, 1903, (348).

— *siamica* n. sp. Siam. **Swinhoe**, C. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (510).

*Chesiadodes bidisata* n. sp. Arizona. **Dyar**, H. G. Washington, D.C., Proc. Ent. Soc. **5**, 1903, (223-232).

*Chlorochroma* nn. spp., n. ab. New Guinea. **Warren**, W. Nov. Zool., Tring, **10**, 1903, (355-357).

*Chloroclysta fulminea* n. sp. S. America. **Dognin**, P. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (310).

*Chloroclystis* nn. spp. New Guinea. **Warren**, W. Nov. Zool., Tring, **10**, 1903, (378-379).

— *olivata*, Warr. from Bhutan, etc., *C. debiliata* Hubn. Central Asia, *C. picta*, Warr. from Khasis, *C. papillosa* Warr. Sikkim and Khasis, notes; *C. rectaria* n. sp. Ceylon. **Hampson**, Sir G. F. Bombay, J. Nat. Hist. Soc., **14**, 1903, (641-643).

*Chrysocloroma ornatifimbria* n. sp. Solomon Islands. **Warren**, W. l.c. (262-263).

*Chrysocraspedia* nn. spp. Ceylon. **Hampson**, Sir G. F. Bombay, J. Nat. Hist. Soc., **14**, 1903, (652, pl. C, fig. 22).

— nn. spp. New Guinea. **Warren**, W. Nov. Zool., Tring, **10**, 1903, (365-366).

— *rubricata* n. sp. Malay Peninsula. **Swinhoe**, C. Fascic. Malay. Zool., **1**, (94).

*Chrysolene aurora* n. sp. New Guinea. **Warren**, W. Nov. Zool., Tring, **10**, 1903, (366-367).

*Cidaria luteola* n. sp. Paraguay. **Dognin**, P. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (183).

*Ciraeodes meridaria* n. sp. Venezuela. **Dognin**, P. l.c. (185).

*Cnemodes rubripuncta* n. sp. Amérique du Sud. **Dognin**, P. l.c. **46**, 1902, (344).

*Coenocalpe marmorata* n. sp. Amérique du Sud. **Dognin**, P. l.c. (348).

*Colliz icteraria* n. sp. Malay Peninsula. **Swinhoe**, C. Fascic. Malay. Zool., **1**, (93).

*Crasiologia* n. gen., *C. dispar* n. sp. New Guinea. **Warren**, W. Nov. Zool., Tring, **10**, 1903, (374-375).

*Craspedia* nn. spp. Ecuador. **Dognin**, P. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (177).

— *bispurcata*, Warr. Khasis, notes; *C. polystigmata* n. sp. Kashmir. **Hampson**, Sir G. F. Bombay, J. Nat. Hist. Soc., **14**, 1903, (649).

— *naia*s n. sp. British East Africa. **Warren**, W. Nov. Zool., Tring, **10**, 1903, (272).

*Craspedosis* nn. spp. New Guinea. **Warren**, W. l.c. (387-388).

*Cymatophora* (?) nn. spp. Amérique du Sud. **Dognin**, P. Bruxelles, Ann. Soc. ent. Belgique, **46**, 1902, (348-350).

— *spatiosata* n. sp. Amérique du Sud. **Dognin**, P. l.c. (479).

*Darantasia perichroa* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (183-201).

*Darna conscita* n. sp. S. America. **Druce**, H. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (198).

*Declana glacialis* n. sp. **Hudson**, G. V. Wellington, Trans. N. Zeal. Inst., **35**, 1903, (245).

*Dectochilus marginata* n. sp. Amérique du Sud. **Dognin**, P. Bruxelles, Ann. Soc. ent. Belgique, **46**, 1902, (339).

*Dialeptis semimarginata* n. sp. Amérique du Sud. **Dognin**, P. l.c. (342).

*Dichromodes* nn. spp. Australia.  
**Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (183-201).

— *griseata* n. sp. **Hudson**, G. V. Wellington, Trans. N. Zeal. Inst., **35**, 1903, (244-245).

*Dirades* nn. spp. Australia. **Turner**, A. J. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (1-26).

*Dysphania imperatrix* n. sp. Solomon Islands. **Warren**, W. Nov. Zool., Tring, **10**, 1903, (261-262).

*Ectropis recticoma* n. sp. Malay Peninsula. **Swinhoe**, C. Fascic. Malay. Zool., **1**, (90-91).

*Elphos exalbata* n. sp. New Guinea. **Warren**, W. Nov. Zool., Tring, **10**, 1903, (390).

*Enconista amoritaria* n. sp. Palaestina. **Püngeler**, R. D. ent. Zs. Iris, Berlin, **15**, 1902, (143-146).

*Endemia* n. gen., *E. tenera* n. sp. New Guinea. **Warren**, W. Nov. Zool., Tring, **10**, 1903, (357-358).

*Eois pararussearia* n. sp. Ecuador. **Dognin**, P. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (179).

*Epiphyryne citrinata* n. sp. New Zealand. **Warren**, W. Nov. Zool., Tring, **10**, 1903, (265-266).

*Epirrhoe respondens* n. sp. Amérique du Sud. **Dognin**, P. Bruxelles, Ann. Soc. ent. Belgique, **46**, 1902, (347).

— *subrufaria* n. sp. British East Africa. **Warren**, W. Nov. Zool., Tring, **10**, 1903, (273).

*Episothalma cognataria* n. sp. Siam. **Swinhoe**, C. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (510).

*Eremocentra* n. gen. New Guinea. **Warren**, W. Nov. Zool., Tring, **10**, 1903, (367).

*Erythrolophus postlineata*, Warr. from "India," notes. **Hampson**, Sir G. F. Bombay, J. Nat. Hist. Soc., **14**, 1903, (652).

*Euchloris dichroa* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (216-239).

*Eucosmia palpata* n. sp. Ecuador. **Dognin**, P. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (181).

*Eucrotes cymaria* n. sp. Simla. **Hampson**, Sir G. F. Bombay, J. Nat. Hist. Soc., **14**, 1903, (655).

— *semitaria* n. sp. Palaestina. **Püngeler**, R. D. ent. Zs. Iris, Berlin, **14**, (1901), 1902, (331-333).

*Eucrotes (Nemoria?) subtusumbrata* n. sp. Sumatra. **Fuchs**, A. Wiesbaden, Jahrb. Ner. Natk., **55**, 1902, Abt. II, (81-91).

*Eucymatoge falsidica* n. sp. New Guinea. **Warren**, W. Nov. Zool., Tring, **10**, 1903, (379).

*Eudule atrimorea* n. sp. Amérique du Sud. **Dognin**, P. Bruxelles, Ann. Soc. ent. Belgique, **46**, 1902, (477).

— *semirubra* n. sp. Amérique du Sud. **Dognin**, P. l.c. (338).

*Eugnesia decolorata* n. sp. New Guinea. **Warren**, W. Nov. Zool., Tring, **10**, 1903, (383-384).

*Euipe inferna* n. sp. New Guinea. **Warren**, W. l.c. (405-406).

*Eupithecia*, Beiträge zur Kenntnis der Gattung. **Dietze**, K. D. ent. Zs. Iris, Berlin, **14**, (1901), 1902, (251-264, mit 1 Taf.).

— Sammelage in Südfrankreich. **Dietze**, K. l.c. **15**, (1902), 1903, (231-268).

— *liguriata* Mill. histoire naturelle. **Chrétien**, P. Naturaliste, Paris, (sér. 2), **24**, 1902, (239-241).

— *ruficarpus*, Warr. from Khasia, *E. oblongata*, Thunbg, Central Asia and Kashmir, notes; and 3 nn. spp. from Ceylon and Kashmir. **Hampson**, Sir G. F. Bombay, J. Nat. Hist. Soc., **14**, 1903, (643, 644).

*Eurythecodes mutabilis* n. sp., nn. abb. British East Africa. **Warren**, W. Nov. Zool., Tring, **10**, 1903, (277).

*Eusarca maculifascia* n. sp. Amérique du Sud. **Dognin**, P. Bruxelles, Ann. Soc. ent. Belgique, **46**, 1902, (339).

*Galechia norvegiae* n. sp. **Strand**, E. Berliner ent. Zs., **47**, 1902, [1903], (155-156).

*Gasterocome subdivisa* n. sp. New Guinea. **Warren**, W. Nov. Zool., Tring, **10**, 1903, (390-391).

*Gastrinopa* n. gen., *G. zyliatis* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (183-201).

*Geometra rufifrontaria* n. sp. Calicut. **Hampson**, Sir G. F. Bombay, J. Nat. Hist. Soc., **14**, 1903, (655).

———— *vernaria*, notes. **Russell**, G. M. Entomologist, London, **36**, 1903, (227-228).

*Gnophos difficilis* Alph. var. *korlata* n. var. **Fuchs**, A. Soc. Entomol., Zürich, **18**, 1903, (43).

———— *pentheri* n. sp. Hercegovina. **Rebel**, H. Wien, Verh. Zool.-Bot. Ges., **51**, 1901, (801).

———— *praestigaria* n. sp. Centralasien. **Püngeler**, R. D. ent. Zs. Iris, Berlin, **15**, 1902, (147-160).

———— *sordaria* ab. *strandiana* n. ab. **Fuchs**, F. Soc. Entomol., Zürich, **18**, 1903, (73).

*Gonanticlea sublustris* n. sp. New Guinea. **Warren**, W. Nov. Zool., Tring, **10**, 1903, (375).

*Gonophaga* nn. spp., nn. abb. New Guinea. **Warren**, W. l.c. (408-410).

*Gullaca* n. gen., *G. festinata* n. sp. East Indies. **Warren**, W. l.c. (266).

*Gymnoscelis festiva* n. sp. New Guinea. **Warren**, W. l.c. (380).

———— *semivivosa*, Warr from Ceylon and Java, *G. attenuata*, Moore, Ceylon, and *G. albicandata*, Warr, Sikkim. Notes on the species. **Hampson**, Sir G. F. Bombay, J. Nat. Hist. Soc., **14**, 1903, (640).

*Halterophora thalassias* n. sp. New Guinea. **Warren**, W. l.c. (263-264).

*Hammaptera trochilarioides* n. sp. Ecuador, Brazil. **Dognin**, P. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901 (182).

*Hemerophila praestantaria* n. sp. Centralasien. **Püngeler**, R. D. ent. Zs. Iris, Berlin, **15**, 1902, (147-160).

*Hemistola ? punctifimbria* n. sp. New Guinea. **Warren**, W. Nov. Zool., Tring, **10**, 1903, (358).

*Heterodisca ignea* n. sp. New Guinea. **Warren**, W. Nov. Zool., Tring, **10**, 1903, (410).

*Heteromiza robusta* n. sp. New Guinea. **Warren**, W. l.c. (411).

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*Heterusia rubrimarmorata* n. sp. l'Amérique du Sud. **Dognin**, P. Bruxelles, Ann. Soc. Ent. Belgique, **46**, 1902, (338).

*Hibernia*. **Gillmer**, M. Insektenbörse, Leipzig, **20**, 1903, (291-292, 299-300).

*Holorista seminigra* n. sp. New Guinea. **Warren**, W. Nov. Zool., Tring, **10**, 1903, (333).

*Hulstina* n. gen., *H. terlineata* n. sp. **Dyar**, H. G. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (178-179).

*Hybernia erectaria* n. sp. Centralasien. **Püngeler**, R. D. ent. Zs. Iris, Berlin, **15**, 1902, (147-160).

*Hybridoneura abnormis*. Warr. from Khasis. Notes. **Hampson**, Sir G. F. Bombay, J. Nat. Hist. Soc., **14**, 1903, (641).

*Hydrelia* nn. spp. Tibet. **Hampson**, Sir G. F. l.c. **14**, 1903, (646, pl. C, fig. 25).

*Hyephyra plenimargo* n. sp. New Guinea. **Warren**, W. Nov. Zool., Tring, **10**, 1903, (406).

*Hypnochlora popayanaria* n. sp. Colombia. **Dognin**, P. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (310).

*Hypochroma* nn. spp., n. ab. New Guinea. **Warren**, W. Nov. Zool., Tring, **10**, 1903, (350-352).

*Hypographa cyanorrhoea* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (183-201).

———— *dilutaria* n. sp. W. Australia. **Warren**, W. Nov. Zool., Tring, **10**, 1903, (260).

*Hypocynopa* n. gen., *H. delotis* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (183-201).

*Ingena lucifera* n. sp. New Guinea. **Warren**, W. Nov. Zool., Tring, **10**, 1903, (385).

*Iodis* nn. spp. New Guinea. **Warren**, W. l.c. (358-359).

*Iridobapta* n. gen., *I. huntii* n. sp. British New Guinea. **Warren**, W. l.c. (120-121).

*Jodis* (*Nemoria* vel *Hemithea* ?) *pariciliata* n. sp. Sumatra. **Fuchs**, A. Wiesbaden, Jahrb. Ver. Natk., **55**, 1902, Abt. II, (81-91).



*Josia subcuneifera* n. sp. Amérique du Sud. **Dognin**, P. Bruxelles, Ann. Soc. Ent. Belgique, **46**, 1902, (342).

*Larentia* nn. spp. Brazil. **Dognin**, P. l.c. **45**, 1901, (179, 180).

——— *aqueata* var. *hercegovinensis* n. var. **Rebel**, H. Wien, Verh. Zool. Bot. Ges., **51**, 1901, (799).

——— *bastelbergieri* n. sp. Centralasien. **Püngeler**, R. D. Ent. Zs. Iris, Berlin, **15**, 1902, (147-160).

——— *corylata* Thunbg. ab. *albida* n. ab. **Herr**, O. Ofvers. F. Vet. Soc., Helsingfors, **45**, [No. 15] 1902-1903, (1-22).

——— *picata* und *L. designata*, Jugendstadien. **Gauckler**, H. Insektenbörse, Leipzig, **20**, 1903, (331-332).

——— *püngeleri* n. sp. **Stertz**, O. D. ent. Zs. Iris, Berlin, **15**, 1902, (96-99, mit 1 Taf.).

*Leptomeris isodesma* n. sp. Australia, **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (216-239).

*Leptosidia* n. gen., *L. araearia* n. sp. Kashmir und Kangra Valley. **Hampson**, Sir G. F. Bombay, J. Nat. Hist. Soc., **14**, 1903, (653).

*Lignyopectera thaumastaria* n. sp. Bosnia. **Rebel**, H. Wien, Verh. Zool. Bot. Ges., **51**, 1901, (800).

*Liphyra grandis* n. sp. Neuguinea. **Weymer**, G. Ent. Zs., Guben, **16**, (1902-03), 1902, (5-6).

*Lobophorodes* n. gen., *L. undulans* n. sp. Tibet. **Hampson**, Sir G. F. Bombay, J. Nat. Hist. Soc., **14**, 1903, (646).

*Loxochila* ? *meeki* n. sp. New Guinea. **Warren**, W. Nov. Zool., Tring, **10**, 1903, (359).

*Lycauges fragilis* n. sp. British East Africa. **Warren**, W. l.c. (272).

*Lygris peloponnesiaca*, Naturgeschiedte. **Püngeler**, R. Berliner ent. Zs., **48**, 1903, (321-322).

*Mesotrophe* ? *rufiplaga* n. sp. New Guinea. **Warren**, W. Nov. Zool., Tring, **10**, 1903, (367).

*Miantonota punctilinea* n. sp. Amérique du Sud. **Dognin**, P. Bruxelles, Ann. Soc. Ent. Belgique, **46**, 1902, (337).

*Microschema* n. nom. for *Dyschema*. New Guinea. **Warren**, W. Nov. Zool., Tring, **10**, 1903, (349).

*Microsema attenuata* n. sp. Amérique du Sud. **Dognin**, P. Bruxelles, Ann. Soc. Ent. Belgique, **46**, 1902, (340).

*Milionia* nn. spp. British New Guinea. **Jordan**, K. Nov. Zool., Tring, **10**, 1903, (315-316).

——— nn. spp. New Guinea. **Bothschild**, Hon. W. and **Jordan**, K. l.c. (485-486, pl. XII).

*Mucronodes inopia* n. sp. Venezuela. **Dognin**, P. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (186).

*Nyrioblephara* nn. spp., nn. abb. New Guinea. **Warren**, W. Nov. Zool., Tring, **10**, 1903, (391-395).

*Nearcha* nn. spp. Australia. **Lower**, O. B. Adelaide, S. Aust. Trans. R. Soc., **27**, 1903, (183-201).

*Neoscelis* n. gen., *N. rivula* n. sp. Ceylon and Java. **Hampson**, Sir G. F. Bombay, J. Nat. Hist. Soc., **14**, 1903, (639).

*Neostega* n. gen., *N. flaviguttata* n. sp. Niger. **Warren**, W. Nov. Zool., Tring, **10**, 1903, (276).

*Nipteria* nn. spp. Amérique du Sud. **Dognin**, P. Bruxelles, Ann. Soc. Ent. Belgique, **46**, 1902, (346).

*Notoreas syndinalis* n. sp. **Hudson**, G. V. Wellington, Trans. N. Zeal. Inst., **35**, 1903, (244).

*Ochyria* (?) *sicyata* n. sp. Brazil. **Dognin**, P. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (183).

——— *tricolorata* n. sp. Amérique du Sud. **Dognin**, P. l.c. **46**, 1902, (347).

*Odezia tibiale*. **Finke**, L. Ent. Zs., Guben, **16**, (1902-03), 1902, (2, 10).

*Odontoptila mimica* n. sp. **Dognin**, P. Bruxelles, Ann. Soc. ent., Belgique, **46**, 1902, (343).

*Oenochroma guttilinea* n. sp. Queensland. **Warren**, W. Nov. Zool., Tring, **10**, 1903, (260-261).

*Oenoptila flavirupta* n. sp. New Guinea. **Warren**, W. l.c. (402).

——— *recessa* n. sp. Venezuela. **Dognin**, P. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (185).

*Orthosia helvola* ab. *cinnamomea* n. ab.  
Fuchs, A. Soc. Entomol., Zürich, **18**,  
1903, (3).

— *rutacilla*. de Rougemont,  
F. Arch. Sci. Phys., Genève, (4), **16**,  
1903, (731-732).

*Oxydia* nn. spp. Bolivia and Merida.  
Dognin, P. Bruxelles, Ann. Soc. ent.  
Belgique, **45**, 1901, (186).

*Pachytyla* n. gen., *P. doliopa* n. sp.  
Australia. Lower, O. B. Adelaide,  
S. Aust., Trans. R. Soc., **27**, 1903, (183-  
201).

*Paradromulia anomala*, variation,  
synonymy nn. spp., nn. abb. New  
Guinea. Warren, W. Nov. Zool.,  
Tring, **10**, 1903, (396-398).

*Paraleis* nn. spp. New Guinea.  
Warren, W. l.c. (398-401).

*Parallage intricata* n. sp. Amérique  
du Sud. Dognin, P. Bruxelles, Ann.  
Soc. Ent. Belgique, **46**, 1902, (346).

*Paramelora* n. gen., *P. zophodesma* n.  
sp. Australia. Lower, O. B. Adelaide,  
S. Aust., Trans. R. Soc., **27**, 1903, (183-  
201).

*Paratostega pallidicosta* n. sp.  
Solomon Islands. Warren, W. Nov.  
Zool., Tring, **10**, 1903, (269).

*Pareclipsis ansorgeata* n. sp. Niger.  
Warren, W. l.c. (278).

*Pauresthes* n. gen., *P. caniola*, *P.*  
*signifera* nn. spp. New Guinea.  
Warren, W. l.c. (359-361).

*Perigramme immaculata* n. sp.  
Amérique du Sud. Dognin, P. Bruxelles,  
Ann. Soc. Ent. Belgique, **46**, 1902,  
(478).

— *marginata* n. sp. Amérique  
du Sud. Dognin, P. l.c. (346).

*Perizera* nn. spp. New Guinea.  
Warren, W. Nov. Zool., Tring, **10**,  
1903, (367-369).

*Petrodata gibbosa* n. sp., nn. abb.  
New Guinea. Warren, W. l.c. (406-  
407).

*Phaeoclaena* nn. spp. Amérique du  
Sud. Dognin, P. Bruxelles, Ann. Soc.  
Ent. Belgique, **46**, 1902, (475).

*Pharepis* (recte *Therapis*) *exonymaria*  
Schiff nov. ab. Wagner, F. Soc. Ento-  
mol., Zürich, **18**, 1903, (92-93).

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*Phibalapteryx fusconotata* n. sp.  
Ecuador. Dognin, P. Bruxelles, Ann.  
Soc. ent. Belgique, **45**, 1901, (180).

*Phoredasma* (*Euchloris*) *dulcinata* n.  
sp. Sumatra. Fuchs, A. Wiesbaden,  
Jahrb. Ver. Natk., **55**, 1902, Abt. II,  
(81-91).

— (*Comibaena*) *pustulata*,  
Aufn., notes. Burrows, C. R. N. Ent.  
Rec., London, **15**, 1903, (171-177, 203-  
205, pl. VII).

*Phrudophleps* n. gen., *P. tiridis* n.  
sp. New Guinea. Warren, W. Nov.  
Zool., Tring, **10**, 1903, (413-414).

*Phyllodonta* nn. spp. Bolivia and  
Chili. Dognin, P. Bruxelles, Ann.  
Soc. ent. Belgique, **45**, 1901, (187).

*Pingasa* nn. spp. New Guinea.  
Warren, W. Nov. Zool., Tring, **10**,  
1903, (352-353).

*Pisoraca simplex* n. sp. New Guinea.  
Warren, W. l.c. (369-370).

*Plectoneura subrubida* n. sp. New  
Guinea. Warren, W. l.c. (385).

*Poecilalcis nigriscripta* n. sp. New  
Guinea. Warren, W. l.c. (401).

*Poecilostigma* n. gen., *P. periculosa*,  
*P. vagabunda* nn. spp. New Guinea.  
Warren, W. l.c. (361-362).

*Polla optimaria* n. sp. Bolivia.  
Dognin, P. Bruxelles, Ann. Soc. ent.  
Belgique, **45**, 1901, (188).

*Polypoetes*? nn. spp. Amérique du  
Sud. Dognin, P. l.c. **46**, 1902, (476-  
477).

*Prasinocyma dohertyi* n. sp. British  
East Africa. Warren, W. Nov. Zool.,  
Tring, **10**, 1903, (271).

*Problepsis transposita* n. sp. New  
Guinea. Warren, W. l.c. (370).

*Prochoerodes fleximargo* n. sp.  
Amérique du Sud. Dognin, P.  
Bruxelles, Ann. Soc. Ent. Belgique, **46**,  
1902, (338).

*Prorocorys admirabilis* n. sp.  
Solomon Islands. Warren, W. Nov.  
Zool., Tring, **10**, 1903, (267).

*Prostenodes* n. gen., *P. comosa* n. sp.  
New Guinea. Warren, W. l.c. (370-  
371).

*Psaliodes trossula* n. sp. Ecuador.  
Dognin, P. Bruxelles, Ann. Soc. ent.  
Belgique, **45**, 1901, (183).

*Pseudoterpna ocellata*, Warr. from Khasis, *P. subeasilis*, Warr. from Sikkim, notes; *P. elaearia* n. sp. Sikkim. **Hampson**, Sir G. F. Bombay, J. Nat. Hist. Soc., **14**, 1903, (654).

*Psychophora*, referred to *Geometridae*. **Dyar**, H. G. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (191-192).

——— classification. **Skinner**, H. L. c. **14**, 1903, (200).

——— *fasciata* n. sp. **Skinner**, H. L. c. (141-143).

*Ptychopoda cubitata* n. sp. Amérique du Sud. **Dognin**, P. Bruxelles, Ann. Soc. ent. Belgique, **46**, 1902, (345).

——— *fumilinea* n. sp. Natal. **Warren**, W. Nov. Zool., Tring, **10**, 1903, (272-273).

——— *inamoena* n. sp. Amérique du Sud. **Dognin**, P. Bruxelles, Ann. Soc. Ent. Belgique, **46**, 1902, (477).

——— *lividula* n. sp. New Guinea. **Warren**, W. Nov. Zool., Tring, **10**, 1903, (371-372).

*Pyrinia dispanea* n. sp. Amérique du Sud. **Dognin**, P. Bruxelles, Ann. Soc. Ent. Belgique, **46**, 1902, (340).

*Pyrrhaspis* n. gen., *P. coerulea*, *P. punctifimbria* nn. spp. New Guinea. **Warren**, W. Nov. Zool., Tring, **10**, 1903, (362-363).

*Pyrrhorachis viridula* n. sp. New Guinea. **Warren**, W. L. c. (363).

*Racheospila luteifimbria* n. sp. Colombia. **Dognin**, P. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (309).

*Rambara strigicosta* n. sp. New Guinea. **Warren**, W. Nov. Zool., Tring, **10**, 1903, (349).

*Remodes erebata* n. sp. Solomon Islands. **Warren**, W. L. c. (267-268).

*Rhinoprora lineola* n. sp. New Guinea. **Warren**, W. L. c. (380).

——— *ruptiscripta* n. sp. Philippine Islands. **Warren**, W. L. c. (267).

*Rhodostrophia* nn. spp., Kashmir and Simla. **Hampson**, Sir G. F. Bombay, J. Nat. Hist. Soc., **14**, 1903, (653-654).

*Rhomborista inquinata* n. sp. New Guinea. **Warren**, W. Nov. Zool., **10**, 1903, (363).

*Rhopalista finitima* n. sp. Brazil. **Dognin**, P. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (182).

*Rhynchospeota* n. gen., *R. delogramma* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (183-201).

*Sangalopsis angulimacula* n. sp. Amérique du Sud. **Dognin**, P. Bruxelles, Ann. Soc. ent. Belgique, **46**, 1902, (341).

*Sarcinodes subfulvida: derufata* n. ab. British New Guinea. **Warren**, W. Nov. Zool., Tring, **10**, 1903, (121).

*Scinneria* n. gen., type *frigidaria* Guen. **Dyar**, H. G. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (193-196).

*Scioglyptis trisyneura* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (183-201).

*Scotosia* nn. spp. Brazil and Paraguay. **Dognin**, P. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (181).

*Selidosema fasciata* n. sp. **Philpott**, A. Wellington, Trans. N. Zeal. Inst., **35**, 1903, (248-249).

——— *monacha* n. sp. **Hudson**, G. V. L. c. (245).

*Semaecopus anomala* n. sp. Amérique du Sud. **Dognin**, P. Bruxelles, Ann. Soc. ent. Belgique, **46**, 1902, (343).

*Stannodes elvosi*, Alph. from Sikkim and Tibet, notes. **Hampson**, Sir G. F. Bombay, J. Nat. Hist. Soc., **14**, 1903, (648, pl. C, fig. 16).

*Stenoplastis* nn. spp. Amérique du Sud. **Dognin**, P. Bruxelles, Ann. Soc. ent. Belgique, **46**, 1902, (474).

*Sterrrha rufula* n. sp. Borneo. **Swinhoe**, C. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (199).

——— *sacrarria* ab. *exocaccaria*, ab. *ochracearia* nn. abb. **Fuchs**, A. Soc. Entomol., Zürich, **18**, 1903, (3).

*Tatosoma topea* n. sp. **Philpott**, A. Wellington, Trans. N. Zeal. Inst., **35**, 1903, (247-248).

*Taxeotis* nn. spp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (183-201).

*Tazilepis* n. gen., *T. regularis* n. sp. New Guinea. **Warren**, W. Nov. Zool., Tring, **10**, 1903, (402-403).

*Telenomeuta* n. gen. **Warren**, W. l.c. (264).

*Tephroclystia* nn. spp. British East Africa. **Warren**, W. l.c. (274).

— *miranda* n. sp. New Guinea. **Warren**, W. l.c. (381).

— *rufipalata* n. sp. Amérique du Sud. **Dognin**, P. Bruxelles, Ann. Soc. ent. Belgique, 46, 1902, (348, 479).

— *sezpunctata* n. sp. Amérique du Sud. **Dognin**, P. l.c. (480).

— *virgaureata* Dbld., Lebensgeschichte. **Klos**, R. Wien, Verh. ZoolBot. Ges., 51, 1901, (785).

*Tephroclystis thalictrata* n. sp. **Püngeler**, R. D. ent. Zs. Iris, Berlin, 15, 1902, (137-140, mit 1 Taf.).

*Tessarotis* n. gen., *T. rubrata* n. sp. Queensland. **Warren**, W. Nov. Zool., Tring, 10, 1903, (269-270).

*Thalassodes* nn. spp., nn. abb. New Guinea. **Warren**, W. l.c. (364-365).

— *aureofulva* Warr. from Khasis, notes; and 2 nn. spp. from Burma and Ceylon. **Hampson**, Sir G. F. Bombay, J. Nat. Hist. Soc., 14, 1903, (655-656, pl. C, figs. 7, 34).

*Thalera fimbrialis* Scop. in Great Britain. **Capper**, C. Ent. Mag., London, 39, 1903, (216).

— *flavitincta*, Warr. from Khasis, *T. albipuncta*, Warr. from Khasis, *T. maculata*, Warr. from Khasis, notes. **Hampson**, Sir G. F. Bombay, J. Nat. Hist. Soc., 14, 1903, (656-657).

*Thamnocausta* n. gen., *T. malachitis* n. sp. New Guinea. **Warren**, W. Nov. Zool., Tring, 10, 1903, (381-382).

*Thamnonoma punctilineata* n. sp. Amérique du Sud. **Dognin**, P. Bruxelles, Ann. Soc. Ent. Belgique, 46, 1902, (345).

*Therapis pallidilinea* n. sp., n. ab. New Guinea. **Warren**, W. Nov. Zool., Tring, 10, 1903, (411).

*Thysanotricha* n. gen., *T. ziczacata* n. sp. Solomon Islands. **Warren**, W. l.c. (264).

*Tolmera* n. gen., *T. albibasalis* n. sp. New Guinea. **Warren**, W. l.c. (401-402).

*Trichopterygia multipunctata* n. sp. Sikkim. **Hampson**, Sir G. F. Bombay, J. Nat. Hist. Soc., 14, 1903, (645).

*Trichopteryx polystictaria* n. sp. Tibet and Yatong. **Hampson**, Sir G. F. l.c. (645).

*Tripteridia* n. gen., *T. novella* n. sp. New Guinea. **Warren**, W. Nov. Zool., Tring, 10, 1903, (375-376).

*Tristrophis veneris*: *unistriga* n. ab. Japan. **Warren**, W. l.c. (268).

*Trochistis* nn. spp. New Guinea. **Warren**, W. l.c. (404-405).

*Urepione epona* n. sp. Ecuador. **Dognin**, P. Bruxelles, Ann. Soc. ent. Belgique, 45, 1901, (189).

*Venusia laria*, Oberth, from Tibet; and 3 nn. spp. from Punjab and Tibet. **Hampson**, Sir G. F. Bombay, J. Nat. Hist. Soc., 14, 1903, (646-647, pl. C, fig. 5).

— *princeps* n. sp. **Hudson**, G. V. Wellington, Trans. N. Zeal. Inst., 35, 1903, (244).

*Xanthorhoe* nn. spp. **Philpott**, A. l.c. (248).

— *hypogramma* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., 27, 1903, (183-201).

— *lucirivata* n. sp. New Guinea. **Warren**, W. Nov. Zool., Tring, 10, 1903, (376-377).

— *roseopicta* n. sp. East Indies. **Warren**, W. l.c. (265).

*Xenobiston* n. gen., *X. casta* n. sp. Egypt. **Warren**, W. and **Rothschild**, N. C. Entomologist, London, 36, 1903, (225-226, pl. IV).

*Xenochlaena* n. gen. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., 27, 1903, (183-201).

*Xenospora* n. gen. **Warren**, W. Nov. Zool., Tring, 10, 1903, (265).

*Zamacra flabellaria*, notes on the resting attitude. **Bate**, D. M. A. Entomologist, London, 36, 1903, (106).

## NOCTUIDAE.

### GENERAL.

**Aimé**, A. La noctuelle du frêne. Nature, Paris, 30, (2<sup>e</sup> sem.), 1902, (314-315).

**Beutenmüller, W.** Descriptive catalogue of the *Noctuidae* found within fifty miles of New York City. New York, N.Y., Bull. Amer. Mus. Nat. Hist., **14**, 1901, (229-312, with 4 pls.).

**Hampson, Sir G. F.** Catalogue of the *Noctuidae* in the collection of the British Museum. London, 1903, (XX + 689); Atlas of 23 pls. (LV-LXXXVII). 8vo. This forms Vol. IV. of the Cat. Lep. Phalaenae, and is devoted to the subfam. Agrotinae.

**Smith, J. B.** New Noctuids for 1903, No. 4, with notes on certain described species. Philadelphia, Pa., Acad. Nat. Sci. Trans. Ent. Soc., **29**, 1903, (191-224, with pl.).

**Uffeln.** Zur Kenntniss einiger Eulen-Arten. D. ent. Zs. Iris, Berlin, **15**, (1902), 1903, (316-320).

#### SPECIAL.

*Abagrotis ornatus* n. sp. **Smith, J. B.** New York, N.Y., J. Ent. Soc., **11**, 1903, (1-23).

*Acanthocoles* n. gen., *A. eucesta* n. sp. Australia. **Turner, A. J.** Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (1-26).

*Acontia* nn. spp. **Smith, J. B.** Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (191-224).

*Acrobyla* n. gen. (~ *Metopoceras*), *A. kneuckeri* n. sp. Sinai-Halbinsel. **Rebel, H.** D. ent. Zs. Iris, Berlin, **16**, 1903, (68-70, mit 1 Taf.).

*Acronycta psorallina* n. sp. Australia. **Lower, O. B.** Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (31).

— *pfizenmaieri* n. sp. Nord-Oest Siberia. **Herz, O.** St. Petersburg, Ann. Mus. zool. Ac. Sc., **8**, 1903, (75).

— *rumicis*, *Melanismus*. **Schultz, O.** Soc. Entomol., Zürich, **16**, 1902, (170).

*Agrotis* nn. spp. **Hampson, Sir G.** Cat. Lep. Phal., IV, 1903, (416-459, 662).

— nn. spp. Lena-Expedition. **Herz, O.** Helsingfors, Öfvers. F. Vet. Soc., **45**, [No. 15], 1902-1903, (1-22).

— nn. spp. N. O. Siberia. **Herz, O.** St. Petersburg, Ann. Mus. zool. Ac. Sc., **8**, 1903, (61-87).

*Agrotis candeliacqua*. **Wendlandt, P.** Ent. Zs., Guben, **16**, (1902-03), 1902, (61-62).

— *cursoria* var. *obscura* var. *sagitta*, Heimaths-Nachweis. **Riesen, A.** Stettiner ent. Ztg., **64**, 1903, (358).

— *fugax*, Heimaths-Nachweis. **Riesen, A. l.c.** (37-38).

— *intolerabilis* n. sp. Centralasien. **Püngeler, R.** [Forts.] D. ent. Zs. Iris, Berlin, **15**, 1902, (147-160, mit 2 Taf.).

— *rubi* View.—*florida* Schm. **Petersen, W.** Ent. Zs., Guben, **16**, (1902-03), 1902, (2).

*Amaloptila* n. gen., *A. triorbis* n. sp. Australia. **Turner, A. J.** Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (1-26).

*Amolita* nn. spp. **Smith, J. B.** Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (191-224).

*Amphipyra satinea*. de **Rougemont, F.** Arch. Sci. Phys., Genève, [4], **16**, 1903, (731-732).

*Amyna spilonota* n. sp. Australia. **Lower, O. B.** Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (27-74).

*Anarta laerta* n. sp. **Smith, J. B.** New York, N.Y., J. Ent. Soc., **11**, 1903, (1-23).

— *lamuta* n. sp. N. O. Siberia. **Herz, O.** St. Petersburg, Ann. Mus. zool. Ac. Sc., **8**, 1903, (82).

*Anytus tenuilinea* n. sp. **Smith, J. B.** New York, N.Y., J. Ent. Soc., **11**, 1903, (188-193).

*Aretypa* n. gen., type, *Eucalypra pectinicornis*. **Smith, J. B.** Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (191-224).

*Avitta alternans* n. sp. British New Guinea. **Warren, W.** Nov. Zool., Tring, **10**, 1903, (124).

— *cupienda* n. sp. **Swinhoe, C.** Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (509).

— *evrrhoa* n. sp. Australia. **Lower, O. B.** Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (27-74).

*Bleptina odontias* n. sp. Australia. **Lower, O. B. l.c.** (27-74).

*Bomolocha atomaria* n. sp. **Smith, J. B.** Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (191-224).

*Bryophila ceratopyga* n. sp. Centralasien. **Püngeler**, R. D. ent. Zs. Iris, Berlin, 15, 1902, (147-160).

*Calesia vinolia* n. sp. Fergusson Island. **Swinhoe**, C. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (508).

*Callyna leuconota* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., 27, 1903, (35).

*Capnodes albisigillata* n. sp., *C. finipalpis*: *trimaculata* n. subsp. British New Guinea. **Warren**, W. Nov. Zool., Tring, 10, 1903, (123-124).

———— *badia* n. sp. Malay Peninsula. **Swinhoe**, C. Fascic. Malay. Zool., 1, (82).

———— *niphomacula* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., 27, 1903, (41).

*Caradrina* (?) nn. spp. Australia. **Lower**, O. B. l.c. (31).

———— nn. spp. Australia. **Turner**, A. J. l.c. (4-5).

———— *vulschlegeli* n. sp. **Püngeler**, R. Soc. Entomol., Zürich, 17, 1903, (145-147).

*Carea plagioscia* n. sp. Australia. **Turner**, A. J. Adelaide, S. Aust., Trans. R. Soc., 27, 1903, (7).

———— *robinsoni* n. sp. Malay Peninsula. **Swinhoe**, C. Fascic. Malay. Zool., 1, (75).

*Carneades* nn. spp. **Smith**, J. B. New York, N.Y., J. Ent. Soc., 11, 1903, (6, 7).

———— *rumatana* n. sp. **Smith**, J. B. Philadelphia, Pa., Acad. Nat. Sci., Trans. Ent. Soc., 29, 1903, (203).

*Catocala*, notes, 4 nn. varr. **Beutenmüller**, W. New York, N.Y., Bull. Amer. Mus. Nat. Hist., 19, 1903, (505-510). Separate. 24.5 cm.

———— collections. **Hampson**, G. F. Philadelphia, Pa., Ent. News Acad. Nat. Sci., Amer. Ent. Soc., 14, 1903, (287).

———— **Schrank**. Some remarks on this genus in the Catalogue of Lepidoptera by **Staudinger** and **Rebel**, 1901. (Russ.) **Kuznetsov**, N. I. Rev. Russ. Ent., Jaroslavl, 3, 1903, (71-75 + engl. Res. 75-76).

———— . . . 13 spp. Japan [described and figured]. (Japanese)

**Miyake**, T. Dobuts. Z., Tokyo, 15, 1903, (354-356, 384-390).

*Catocala*, protection, evolution [Color]. **Weeks**, A. C. New York, N.Y., J. Ent. Soc., 11, 1903, (221-226).

———— *mesopotamica* n. nom. = *C. aspasia* Stand. 1896, *Catocala edwardsi* n. nom. = *C. mariana* Hy. Edw. 1875. **Kuznetsov**, N. Rev. Russ. Ent., Jaroslavl, 3, 1903, (71-75 + engl. Res. 75-76).

———— *orba* n. sp. Texas. **Kuznetsov**, N. I. l.c. (166-168, with 4 figs.).

———— *puerpera*, notes. **Jullien**, J. Soc. Entomol., Zürich, 17, 1902, (97-98).

*Celaena calcirena* n. sp. Centralasien. **Püngeler**, R. D. ent. Zs. Iris, Berlin, 16, 1902, (147-160).

*Cerma fascia* n. sp. **Smith**, J. B. New York, N.Y., J. Ent. Soc., 11, 1903, (188-193).

*Cerynea decorata* n. sp. Siam **Swinhoe**, C. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (505).

*Chloridea* nn. spp. **Hampson**, Sir G. Cat. Lep. Phal., IV, 1903, (42-48, pl. LV).

*Chlorocleptia* n. gen. **Hampson**, Sir G. l.c. (50).

*Churia thermodes* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., 27, 1903, (27-74).

*Chytonix* nn. spp. **Smith**, J. B. New York, N.Y., J. Ent. Soc., 11, 1903, (188-193).

*Cladocerotis* n. gen. **Hampson**, Sir G. Cat. Lep. Phal., IV, 1903, (138).

*Cleophana anarrhini*. **Glârd**, A. Feuille jeunes natural., Paris, (sér. 4), 33, 1902, (33-34).

*Coenotoca* n. gen. *C. monophyes* n. sp. Australia. **Turner**, A. J. Adelaide, S. Aust., Trans. R. Soc., 27, 1903, (2).

*Conacontia* nn. spp. **Smith**, J. B. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., 29, 1903, (191-224, with pl.).

*Cnsercula furva* n. sp. Tropical America. **Schaus**, W. New York, N.Y., J. Ent. Soc., 11, 1903, (230-236).

*Corygatha pusilla* n. sp. Siam. **Swinhoe**, C. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (505).

*Corula* (?) nn. spp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (39-40).

——— *ischnodes* n. sp. Australia. **Turner**, A. J. l.c. (10).

*Cosmia venosa* n. sp. **Smith**, J. B. New York, N.Y., J. Ent. Soc., **11**, 1903, (1-23).

*Cucullia linoxyridis* n. sp. **Fuchs**, A. Soc. Entomol., Zürich, **18**, 1903, (83-84).

*Cymatophoropsis catagrapha* n. sp. Australia. **Turner**, A. J. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (7).

*Dierna achroa* n. sp. Australia. **Lower**, O. B. l.c. (35).

*Diphthera beryllodes* n. sp. Australia. **Turner**, A. J. l.c. (5).

*Dyscnenis borealis* n. sp. **Hampson**, Sir G. Cat. Lep. Phal., IV, 1903, (24, pl. LV).

*Ectopatria* n. gen., *E. paurogramma*, *E. epilomata*, *E. umbrosa* nn. spp. Australia. **Hampson**, Sir G. l.c. (653-654, pl. LXXVII).

*Egnasia franconia* n. sp. South Java. **Swinhoe**, C. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (508).

——— *psammochroa* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (41).

*Eligina orthozantha* n. sp. **Lower**, O. B. l.c. (27-74).

*Epidemas obscuras* n. sp. **Smith**, J. B. New York, N.Y., J. Ent. Soc., **11**, 1903, (1-23).

*Epieilia* nn. spp. **Hampson**, Sir G. Cat. Lep. Phal., IV, 1903, (489-509, pl. LXXIII).

*Epunda bacheri* n. sp. Palaestina. **Püngeler**, R. D. ent. Zs. Iris, Berlin, **14**, (1901), 1902, (331-333).

*Erastria onthodes* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (32).

*Eucalyptra* nn. spp. **Smith**, J. B. Philadelphia, Pa., Acad. Nat. Sci. Trans. Amer. Ent. Soc., **29**, 1903, (191-224).

*Euclidia dyari* n. sp. **Smith**, J. B. l.c. (191-224).

*Eucoptoenemis stenistis* n. sp. Chili. **Hampson**, Sir G. Cat. Lep. Phal., IV, 1903, (463).

*Eueretagrotis inattenta* n. sp. **Smith**, J. B. New York, N.Y., J. Ent. Soc., **11**, 1903, (5).

*Eupanychia mexicana* n. sp. **Hampson**, Sir G. Cat. Lep. Phal., IV, 1903, (95).

*Euthisanotia semiviridis* n. sp. Peru. **Druce**, H. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (200).

*Euzoa* nn. spp. **Hampson**, Sir G. Cat. Lep. Phal., IV, 1903, (166-336, 661).

——— (= *Carneades*) *nesilens* n. sp. **Smith**, J. B. New York, N.Y., J. Ent. Soc., **11**, 1903, (192).

*Feltia* nn. spp. **Hampson**, Sir G. Cat. Lep. Phal., IV, 1903, (350, 355, pl. LXVIII).

*Fishia exhilarata* n. sp. **Smith**, J. B. Philadelphia, Pa., Acad. Nat. Sci., Trans. Ent. Soc., **29**, 1903, (202).

——— *cinela* n. sp. **Smith**, J. B. New York, N.Y., J. Ent. Soc., **11**, 1903, (191).

*Fodina chrysomera* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (39).

*Gadirthra hades* n. sp. Australia. **Lower**, O. B. l.c. (36).

*Grammodes callizeris* n. sp. Australia. **Lower**, O. B. l.c. (38).

*Hadena (Xylophasia)* nn. spp. **Smith**, J. B. New York, N.Y., J. Ent. Soc., **11**, 1903, (8-9).

——— *adusta* Esp. var. *nova bathensis* Lutzau? nur die schon bekannte var. *virgata* Tutt oder nicht? **Slevogt**, B. Soc. Entomol., Zürich, **17**, 1902, (89).

——— var. *bathensis* m. **Lutzau**, C. von. l.c. **18**, (129-131).

——— *dolia* n. sp. Centralasien. **Püngeler**, R. D. ent. Zs. Iris, Berlin, **15**, 1902, (177-260).

——— *exhausta* n. sp. **Smith**, J. B. Philadelphia, Pa., Acad. Nat. Sci., Trans. Ent. Soc., **29**, 1903, (194).

——— *ferrago* Ev. ab. *umbrata* n. ab. Lena Expedition. **Hers**, O. Olivers. F. Vet. Soc., Helsingfors, **45**, [No. 15], 1902-1903, (1-22).

——— *tritici* and *H. secalis* harmful to cereals. **Lampa**, I. (Swedish)

Entomol. Tidskr., Stockholm, **22**, 1901, (129-136, with pl.).

*Hamodes pseudoptera* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (27-74).

*Heliothis cora* Ev. ab. *odenualli* n. ab. Lena Expedition. **Herr**, O. Ofvers. F. Vet. Soc., Helsingfors, **45**, [No. 15], 1902-1903, (1-22).

*Heterormista fulvitaenia* n. sp. British New Guinea. **Warren**, W. Nov. Zool., Tring, **10**, 1903, (121-122).

*Himella* nn. spp. Tropical America. **Schaus**, W. New York, N.Y., J. Ent. Soc., **11**, 1903, (230-236).

*Hiptelia apfelbecki* n. sp. Bosnia. **Rebel**, H. Wien, Verh. Zool. Bot. Ges., **51**, 1901, (798).

*Hispena* nn. spp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (49).

*Homopryalis monodia* n. sp. United States. **Dyar**, H. G. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (290-298).

*Hyblaea puera* Cram.; *H. puera* var. *nigra* MS; *H. constellata* Guen attacking Teak in India and Burma. Description, life history, relations to forest protection and remedies, points for observation. **Stebbing**, E. P. Departmental Notes on Insects that affect Forestry No. 2. Calcutta, 1903, (287, 294, 298, with pls. and figs.).

——— *vasa* n. sp. **Swinhoe**, C. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (506).

*Hydraecia* nn. spp. Tropical America. **Schaus**, W. New York, N.Y., J. Ent. **11**, 1903 (230-236).

*Hyperna cremona* n. sp. Fergusson Island. **Swinhoe**, C. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (509-510).

——— *gypsoepila* n. sp. Australia. **Turner**, A. J. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (14).

*Hyperlopha amicta* n. sp. Australia. **Turner**, A. J. l.c. (10).

*Idalima* n. gen. Australia. **Turner**, A. J. l.c. (1-26).

*Ischyja polyetigma* n. sp. Australia. **Lower**, O. B. l.c. (36).

*Isogona reniformis* n. sp. **Smith**, J. B. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (214).

*Labanda amabilis* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (647).

——— *huntsi* n. sp. British New Guinea. **Warren**, W. Nov. Zool., Tring, **10**, 1903, (125).

*Laphygma frugiperda*, habits. **Chittenden**, F. H. Washington, D.C., Bull., U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **29**, 1901, (64). 23 cm.

*Lena* n. gen., *L. poppiusi* n. sp. Lena Expedition. **Herr**, O. Helsingfors, Ofvers. F. Vet. Soc., **45**, [No. 15], 1902-1903, (9).

*Lepidotrama* n. nom. = *Trama* Harvey not Heyd. **Cockerell**, T. D. A. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (182).

*Leucania acotosema* n. sp. Australia. **Turner**, A. J. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (4).

——— *deserticola* n. sp. Ural. **Bartel**, M. D. ent. Zs. Iris, Berlin, **15**, (1902), 1903, (183-230).

*Leucanitis* nn. subsp. **Fuchs**, A. Soc. Entomol., Zürich, **18**, 1903, (50-51).

*Lineopalpa orsara* n. sp. **Swinhoe**, C. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (506-507).

*Luperina migrata* n. sp. **Smith**, J. B. New York, N.Y., J. Ent. Soc., **11**, 1903, (188).

*Lycophotia* nn. spp. **Hampson**, Sir G. Cat. Lep. Phal., IV, 1903, (518-576).

——— *atristriata* n. sp. Brazil. **Druce**, H. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (199-200).

——— *microstigma* n. sp. Tropical America. **Schaus**, W. New York, N.Y., J. Ent. Soc., **11**, 1903, (230).

*Lythrodus* n. gen., *L. radiatus*, *L. venatus*, *L. discistriga* nn. spp. **Smith**, J. B. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (206-207).

*Mamestra* nn. spp. Centralasien. **Püngeler**, R. D. ent. Zs. Iris, Berlin, **15**, 1902, (147-160).



*Mamestra* nn. spp. Tropical America. **Schaus**, W. New York, N.Y., J. Ent. Soc., **11**, 1903, (230-231).

— *artesta* n. sp. **Smith**, J. B. Philadelphia, Pa., Acad. Nat. Sci., Trans. Ent. Soc., **29**, 1903, (197).

— *lunolacta* n. sp. **Smith**, J. B. New York, N.Y., J. Ent. Soc., **11**, 1903, (17).

— *xanthocosma* n. sp. Australia. **Turner**, A. J. Adelaide, S. Aust., Trans. R. Soc., **27**, 1902, (3).

*Manruta* n. gen., *M. elingua* n. sp. **Smith**, J. B. Philadelphia, Pa., Acad. Nat. Sci., Trans. Ent. Soc., **29**, 1903, (205, with pl.).

*Marapana rhodea* n. sp. Australia. **Turner**, A. J. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (1-26).

*Mecistoptera lithochroa* n. sp. Australia. **Lower**, O. B. l.c. (48).

*Mecodina* nn. spp. Australia. **Lower**, O. B. l.c. (42).

*Melanchra* nn. spp. **Philpott**, A. Wellington, Trans. N. Zeal. Inst., **35**, 1903, (246-247).

— *umbra* n. sp. **Hudson**, G. V. l.c. (243-245).

*Melicleptria kasloa* n. sp. **Smith**, J. B. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (208).

*Mesembreuxia* n. gen., *M. chilensis* n. sp. **Hampson**, Sir G. Cat. Lep. Phal., IV, 1903, (137).

*Metachrostis costiplaga* n. sp. Egypt. **Warren**, W. and **Rothschild**, N. C. Entomologist, London, **36**, 1903, (225-226, pl. IV).

— *fausta* n. sp. **Tandong**. **Swinhoe**, C. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (506).

— *sciaptera* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (44).

*Micragotis* n. gen., *M. exusta*, *M. azyliide*, *M. lacetata*, *M. rufescens*, *M. acydonta*, *M. mirostigma*, *M. proscarca* nn. spp. **Hampson**, Sir G. Cat. Lep. Phal., IV, 1903, (148-152, 659).

*Miselia iota* n. sp. **Hudson**, G. V. Wellington, Trans. N. Zeal. Inst., **35**, 1903, (243).

*Moma geminata* n. sp. **Smith**, J. B. New York, N.Y., J. Ent. Soc., **11**, 1903, (1-23).

*Namangana contumax* n. sp. Centralasien. **Püngeler**, R. D. ent. Zs. Iris, Berlin, **15**, 1902, (147-160).

*Neocleptria* n. gen. for *Heliothis punctifera* Walk. **Hampson**, Sir G. Cat. Lep. Phal., IV, 1903, (32).

*Nephelodes tertialis* n. sp. **Smith**, J. B. New York, N.Y., J. Ent. Soc., **11**, 1903, (1-23).

*Netrocrocara* n. gen. (~ *Rusina*), *N. quadriplaga* n. sp. Ural. **Bartel**, M. D. ent. Zs. Iris, Berlin, **15**, (1902), 1903, (183-230).

*Neurois* n. gen. **Hampson**, Sir G. Cat. Lep. Phal., IV, 1903, (610).

*Noctua amia* n. sp. Arizona. **Dyar**, H. G. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (224).

*Nonagria*, preliminary revision of species. **Smith**, J. B. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (56).

— revision of, North American spp.; *N. alameda* n. sp. **Smith**, J. B. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (311-321, with pl.).

*Noorda accensalis* n. sp. Siam. **Swinhoe**, C. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (507).

*Oncoenemis* nn. spp. **Smith**, J. B. New York, N.Y., J. Ent. Soc., **11**, 1903, (11-12).

*Onychagrotis* n. gen. for *Agrotis rileyana* Morr. **Hampson**, Sir G. Cat. Lep. Phal., IV, 1903, (465).

*Ophiusa* nn. spp. Australia. **Lower**, O. B. Adelaide, S. Aust. Trans. R. Soc., **27**, 1903, (37-38).

— *indeterminata*, larva, pupa. **Fawcett**, J. M. London, Trans. Zool. Soc., **17**, 1903, (pl. VIII, figs. 15-16).

— *stolida* Fab., new to Britain. **Jäger**, J. Ent. Mag., London, **39**, 1903, (269).

*Orosagrotis* n. gen., *O. amphora*, *O. cashmirensis* nn. spp. Kashmir. **Hampson**, Sir G. Cat. Lep. Phal., IV, 1903, (135).

*Ozaenanus longipalpis* n. sp. Malay Peninsula. **Swinhoe**, C. Fascic. Malay Zool., **1**, (83).

*Paclinobia roosta* n. sp. **Smith, J. B.** Philadelphia, Pa., Acad. Nat. Sci., Trans. Ent. Soc., **29**, 1903, (203).

*Palindia merricki* n. sp. **Holland, W. J.** Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (172-173).

*Panilla melanosticta* n. sp. Australia. **Turner, A. J.** Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (12).

*Parazestia* n. gen. for *Amphipyra flavicaudata* Warr. **Hampson, Sir G.** Cat. Lep. Phal., IV, 1903, (601).

*Peridroma saucia*, habits. **Chittenden, F. H.** Washington, D.C., Bull. U. S. Dept. Agric., Div. Ent., (N. Ser.), No. **29**, 1901, (64). 23 cm.

*Perigonica tertia* n. sp. United States. **Dyar, H. G.** Washington, D.C., Proc. Ent. Soc., **5**, 1903, (294).

*Perigrapha dukinfieldi* n. sp. Tropical America. **Schaus, W.** New York, N.Y., J. Ent. Soc., **11**, 1903, (236).

*Phiprosopus callitrichoides*, larva. **Daescke, E.** l.c. (105).

*Placerobela* n. gen., *P. brachyphylla* n. sp. Australia. **Turner, A. J.** Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (13-14).

*Plathypena scabra*, habits and development. **Chittenden, F. H.** Washington, D.C., Bull. U. S. Dept. Agric., Div. Ent., (N. Ser.), No. **30**, 1901, (45-50).

*Platyja sada* n. sp. Malay Peninsula. **Swinhoe, C.** Fascic. Malay. Zool., **1**, (79).

*Plecoptera pellicea* n. sp. Siam. **Swinhoe, C.** Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (507).

*Plusia aurifera*, nouveau pour la Provence. **Siépi.** Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (101-102).

*Polia* nn. spp. Centralasien. **Püngeler, R.** l.c. (146-160).

—— *dubia*, eine neue interessante Form aus den Hautes Pyrénées. **Stertz, O.** l.c. (180-181).

*Polydesma auriculata* n. sp. Australia. **Turner, A. J.** Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (9).

—— *prasina* n. sp. Assam. **Swinhoe, C.** Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (200).

*Porosagrotis* nn. spp. **Hampson, Sir G.** Cat. Lep. Phal., IV, 1903, (143, 658).

*Protopocis* nn. spp. Australia. **Lower, O. B.** Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (44, 46).

*Protagrotis* n. gen. **Hampson, Sir G.** Cat. Lep. Phal., IV, 1903, (655).

*Proteuzoa* n. gen., *P. mniodes*, *P. amaurodes* nn. spp. **Hampson, Sir G.** l.c. (640-650).

*Pseudacantia groteana* n. sp. Arizona. **Dyar, H. G.** Washington, D.C., Proc. Ent. Soc., **5**, 1903, (223-232).

*Pseudohadena idumaea* n. sp. Palaestina. **Püngeler, R.** D. ent. Zs. Iris, Berlin, **14**, (1901), 1902, (331-333).

*Pseudophia lunaris*, ein neuer Feind der Eichenkulturen. **Wilbrand.** Allg. Forstztg., Frankfurt a. M., **79**, 1903, (11-13).

—— *viskotti* n. sp. Palaestina. **Püngeler, R.** D. ent. Zs. Iris, Berlin, **14**, (1901), 1902, (331-333).

*Pseudotamila carminatra* n. sp. **Smith, J. B.** Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (191-224).

*Pterocyclophora huntii* n. sp. British New Guinea. **Warren, W.** Nov. Zool., Tring, **10**, 1903, (122).

*Pyrocleptria* n. gen., *P. californica* n. sp. **Hampson, Sir G.** Cat. Lep. Phal., IV, 1903, (25).

*Raghura* nn. spp. **Hampson, Sir G.** l.c. (29-32).

*Raparna* nn. spp. Australia. **Lower, O. B.** Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (43).

*Raphia cinderella* n. sp. **Smith, J. B.** Philadelphia, Pa., Acad. Nat. Sci., Trans. Ent. Soc., **29**, 1903, (193).

*Rhodocleptria* n. gen. for *Noctua incarinata* Fr. **Hampson, Sir G.** Cat. Lep. Phal., IV, 1903, (33).

*Rhynchagrotis* nn. spp. **Smith, J. B.** New York, N.Y., J. Ent. Soc., **11**, 1903, (3).

*Richia* nn. spp. **Hampson, Sir G.** l.c. (596-200).

—— *carnea* n. sp. Chili. **Druce, H.** Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (200).

*Scolecocampa atriluna* n. sp. **Smith**, J. B. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (217).

*Scopelosoma colorada* n. sp. **Smith**, J. B. New York, N.Y., J. Ent. Soc., **11**, 1903, (21).

*Scotogramma albinuda* n. sp. **Smith**, J. B. l.c. (19).

*Stenagrotis* n. gen. for *Trachodopalpus edmondsi* Butl. **Hampson**, Sir G. Cat. Lep. Phal., IV, 1903, (139).

*Stictoptera huma* n. sp. Malay Peninsula. **Swinhoe**, C. Fascic. Malay. Zool., **1**, (75).

*Stilbia insularis* n. sp. **Fuchs**, A. Soc. Entomol., Zürich, **18**, 1903, (9-10).

*Stretchia mys* n. sp. United States. **Dyar**, H. G. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (290-298).

*Talapa gebenna* n. sp. Siam and Singapore. **Swinhoe**, C. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (509).

*Tarache* nn. spp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (32-33).

*Thyas* nn. spp. Australia. **Turner**, A. J. l.c. (8-9).

———— *pallascens* n. sp. Borneo. **Swinhoe**, C. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (507).

*Thyria* nn. spp. Colombia, Brazil. **Druce**, H. l.c. (201-202).

*Thyrsocelis huntleyi* n. sp. British New Guinea. **Warren**, W. Nov. Zool., Tring, **10**, 1903, (123).

*Timora* nn. spp. W. Africa. **Druce**, H. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (200-201).

———— nn. spp. **Hampson**, Sir G. Cat. Lep. Phal., IV, 1903, (110-117, 168).

*Tornacontia tripartita* n. sp. **Smith**, J. B. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (209-210, 224).

*Trichelea* [*Trichoclea*] *nota* n. sp. **Smith**, J. B. l.c. (198).

*Trigonodes isosceles* n. sp. British New Guinea. **Warren**, W. Nov. Zool., Tring, **10**, 1903, (123).

*Triphaena comes* Hb. (*Melanozonias*, Gmel), two variable broods from Forres **Prout**, L. B. Ent. Rec., London, **15**, 1903, (217-222).

*Tripeuxouz* n. gen., *T. strigata* n. sp. **Hampson**, Sir G. Cat. Lep. Phal., IV, 1903, (139).

*Valeria jaspidea*. **de Rougemont**, F. Acad. Sci. Phys., Genève, [4], **16**, 1903, (731-732).

———— *oleagina*, Beitrag zur Naturgeschichte. **Völker**, U. Ent. Zs., Guben, **16**, (1902-03), 1902, (38-39).

*Xanthopastis timais*, larva. **Dyar**, H. G. New York, N.Y., J. Ent. Soc., **11**, 1903, (104).

*Xanthoptera* nn. spp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (48).

———— nn. spp. Australia. **Turner**, A. J. l.c. (11).

*Xylomiges conspicillaris* var. *grisea* n. var. **Trautmann**, W. Ent. Zs., Guben, **16**, (1902-03), 1903, (78-79).

*Yrias* nn. spp. **Smith**, J. B. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (215).

*Zagira zylonota* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (34).

*Zethes* nn. spp. Malay Peninsula. **Swinhoe**, O. Fascic. Malay. Zool., **1**, (81).

———— nn. spp. British New Guinea. **Warren**, W. Nov. Zool., Tring, **10**, 1903, (125-126).

———— *blechrodes* n. sp. Australia. **Turner**, A. J. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (12).

———— *syndesman* n. sp. Australia. **Lower**, O. B. l.c. (40).

## EPICOPEIIDAE.

*Epicopeia*, revision. **Danet** A. and **Wytman**, P. In: Wytman, P., *Génère Insectorum*, Bruxelles, 1903, (5 pp., 1 pl. noire et 1 pl. coloriée hors texte). fr. 5.35.

## URANIIDAE.

## SPECIAL.

*Cirrhura* n. gen., *C. cometifera* n. sp. British New Guinea. **Warren**, W. Nov. Zool., **Tring**, **10**, 1903, (343-344).

*Hypercydas* n. gen., *H. calliloma* n. sp. Australia. **Turner**, A. J. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (23).

*Monobolodes ustimacula* n. sp. British New Guinea. **Warren**, W. Nov. Zool., **Tring**, **10**, 1903, (344-345).

*Nyctalemon curvata* n. sp. **Skinner**, H. Philadelphia, Pa., Proc. Acad. Nat. Sci., **56**, 1903, (298).

*Pterotosoma* n. gen., *P. bilineata* n. sp. British New Guinea. **Warren**, W. Nov. Zool., **Tring**, **10**, 1903, (345-346).

## EPIPLEMIDAE.

*Asyngria* n. gen., *A. nigripuncta* n. sp. Amérique du Sud. **Dognin**, P. Bruxelles, Ann. Soc. Ent. Belgique, **46**, 1902, (336).

*Calizzia amorata*, life history. **Dyar**, H. G. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (131-133).

*Crypsicoela* n. gen., *C. subocellata* n. sp. Amérique du Sud. **Dognin**, P. Bruxelles, Ann. Soc. Ent. Belgique, **46**, 1902, (335).

*Epiplema*, nn. spp. Amérique du Sud. **Dognin**, P. l.c. (336-337).

— nn. spp. Australia. **Turner**, A. J. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (19-20).

— nn. spp. Solomon Islands. **Warren**, W. Nov. Zool., **Tring**, **10**, 1903, (259-260).

— *brevidens* n. sp. Amérique du Sud. **Dognin**, P. Bruxelles, Ann. Soc. Ent. Belgique, **46**, 1902, (473).

— *inquinata* n. sp. British New Guinea. **Warren**, W. Nov. Zool., **Tring**, **10**, 1903, (344).

## PYRALIDAE.

## GENERAL.

**Hofgren**, G. Pyralids new for the Swedish fauna. (Swedish) Entomol. Tidskr., Stockholm, **22**, 1901, (241-248).

**Ichès**, L. Le ver des pommes. Nature, Paris, (1<sup>er</sup> sem.), **31**, 1903, (145-147, av. fig.).

*Acara dohrni* n. sp. Sumatra. **Hering**, E. Stettiner ent. Ztg., **64**, 1903, (3), (87, pl. I, fig. 4).

*Acrobasis verrucella* Hb., and *A. rubrotibrella* F. R., as British insects. **Barrett**, C. G. Ent. Mag., London, **39**, 1903, (164-166).

*Actenia orbicentralis* n. sp. **Rebel**, H. D. ent. Zs. Iris, Berlin, **15**, 1902, (190-126).

*Ambia cyanealis* n. sp. Ceylon. **Hampson**, Sir G. F. Bombay, J. Nat. Hist. Soc., **15**, 1903, (206-225, 1 pl.).

— *dohrni* n. sp. Sumatra. **Hering**, E. Stettiner ent. Ztg., **64**, 1903, (51, pl. I, fig. 30).

*Anerastia* nn. spp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (52).

*Anisothrix nobilis* n. sp. British Guiana. **Druce**, H. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (202-203).

*Archemis argocephala* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (64).

*Asarta nigrella* n. sp. Spain. **Hampson**, Sir G. F. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (58).

*Aulacodes triplaga* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (62).

*Blabiades* n. gen., *B. strigerella* n. sp. Ceylon. **Hampson**, Sir G. F. Ser. ii, pt. ix. Bombay, J. Nat. Hist. Soc., **15**, 1903, (25).

*Bocchoris amandalis* n. sp. Siam. **Swinhoe**, C. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (511).

— *quaternalis* from Ceylon described. **Hampson**, Sir G. F. Bombay, J. Nat. Hist. Soc., **15**, No. 2, 1903, (214, 1 pl.).

*Bostra cervinalis* n. sp. **Rebel**, H. D. ent. Zs. Iris, Berlin, **15**, 1902, (100-126).

*Caenodomus fumosalis* n. sp. Khasis. **Hampson**, Sir G. F. Ser. ii, pt. ix. Bombay, J. Nat. Hist. Soc., **15**, 1903, 5, pl. C, fig. 30).

*Calamachrous sterrhalis* n. sp. Simla. **Hampson**, Sir G. F. *l.c.* (206-225, 1 pl.).

*Charltona fusca* n. sp. Ceylon. **Hampson**, Sir G. F. *l.c.* 14, (659, pl. C, fig. 18).

*Chilo boxanus* n. sp. **Hering**, E. *Stettiner ent. Ztg.* 64, 1903, (111).

*Chrysauge* nn. spp. Brazil. **Druce**, H. *Ann. Mag. Nat. Hist.*, London, (Ser. 7), 11, 1903, (203).

*Cirrhochrista cyclophora* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., *Trans. R. Soc.*, 27, 1903, (50).

———— *grabezowskyi* n. sp. **Hering**, E. *Stettiner ent. Ztg.* 64, 1903, (108).

*Cledeobia moldavica* subsp. Spain. **Hampson**, Sir G. F. *Ann. Mag. Nat. Hist.*, London, (Ser. 7), 11, 1903, (58).

———— *syriaca* n. sp. **Rebel**, H. *D. ent. Zs. Iris*, Berlin, 16, 1903, (5).

*Clupeosoma* (?) *mimetica* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., *Trans. R. Soc.*, 27, 1903, (65).

*Coreyra cephalonica*, Stn. from Ceylon, notes. **Hampson**, Sir G. F. Bombay, *J. Nat. Hist. Soc.*, 14, 1903, (657).

*Cornifrons* Led, genus described; *C. ulceratilis* Led, from Ferozepore and Deesa described. **Hampson**, Sir G. F. *l.c.* 15, (224).

*Crambus effectalis*, note. **Dyar**, H. G. Washington, D.C., *Proc. Ent. Soc.*, 5, 1903, (285-286).

———— *phoeostrigellus* n. sp. Kashmir. **Hampson**, Sir G. F. Bombay, *J. Nat. Hist. Soc.*, 14, 1903, (658).

———— *photoleuca* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., *Trans. R. Soc.*, 27, 1903, (27-74).

———— *semicanellus* n. sp. **Fuchs**, A. *Stettiner ent. Ztg.* 64, 1903, (232).

———— *vachellellus* n. sp. **Kearfott**, W. D. New York, N.Y., *J. Ent. Soc.*, 11, 1903, (149).

*Criophlthona trileuca* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., *Trans. R. Soc.*, 27, 1903, (66).

*Crocidophora exstigmialis* n. sp. Burma. **Hampson**, Sir G. F. Bombay, *J. Nat. Hist. Soc.*, 15, 1903, (206-225, 1 pl.).

*Cryptoblabes ephestialis* n. sp. Ceylon. **Hampson**, Sir G. F. *Ser. ii*, pt. ix. *l.c.* 15, (32).

*Cybolomia* Led, genus described; *C. Pentadalis* Led, from Deesa, described. **Hampson**, Sir G. F. *l.c.* 15, (220, 224, with 1 pl.).

*Cydalima fimbriata* n. sp. **Hering**, E. *Stettiner ent. Ztg.* 64, 1903, (105).

*Diathraustodes fulvofusa*, Hampson from Khasis, notes. **Hampson**, Sir G. F. Bombay, *J. Nat. Hist. Soc.*, 15, 1903, (211, with 1 pl.).

———— *similis* n. sp. Khasis. **Hampson**, Sir G. F. *l.c.* (206-225, with 1 pl.).

*Diatroea aculeata* n. sp. Sikkim. **Hampson**, Sir G. F. *l.c.* 14, (659, pl. C, fig. 15).

———— *saccharalis* Fbr., *obliteratus* L., papillon borer, des Antilles, et *Diatraea etriatalis* Snell. le papillon borer de Java et de l'île Maurice et de Réunion, différence entre les deux espèces. **Fougères**, Marquis de. Paris, *Bul. soc. nat. acclim.*, 50, 1903, (60-62).

———— *virgosa* n. sp. Sumatra. **Hering**, E. *Stettiner ent. Ztg.* 64, 1903, (79, pl. I, fig. 32).

*Dichocroeis leptalis* n. sp. Simla. **Hampson**, Sir G. F. Bombay, *J. Nat. Hist. Soc.*, 15, 1903, (206-225, with 1 pl.).

*Eccopidia rinixis* n. sp. Ceylon. **Hampson**, Sir G. F. *l.c.* (21).

*Eldana leucostictalis* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., *Trans. R. Soc.*, 27, 1903, (50).

*Embryoglossa bipuncta* n. sp. Khasis. **Hampson**, Sir G. F. Bombay, *J. Nat. Hist. Soc.*, 14, 1903, (658).

*Endotricha* nn. spp. Kashmir, Sikkim, Khasis. **Hampson**, Sir G. F. *l.c.* 15, 1903, (206-225, with 1 pl.).

———— nn. spp. Australia. **Lower**, O. B. Adelaide, S. Aust., *Trans. R. Soc.*, 27, 1903, (60).

*Ephestia kuehneli*. **Jacobi**, A. Berlin, *Flugbl. Gesundheitsamt*, Nr. 16, 1902, (4).

———— from White Co., Indiana, new locality. **Johnson**, W. G. Philadelphia, Pa., *Ent. News Acad. Nat. Sci.*, 13, 1902, (159).

*Epinoorda* n. gen., *E. caradjae* n. sp. **Rebel**, H. D. ent. Zs. Iris, Berlin, **15**, 1902, (100-126).

*Eristena straminealis* n. sp. **Sikhim**. **Hampson**, Sir G. F. Bombay, J. Nat. Hist. Soc., **15**, 1903, (206-225, 1 pl.).

*Eromene pygmaea* n. sp. **Sumatra**. **Hering**, E. Stettiner ent. Ztg, **64**, 1903, (81, pl. I, fig. 33).

*Etiella* nn. spp. **Ceylon**, **Simla**, **Kashmir**. **Hampson**, Sir G. F. Bombay, J. Nat. Hist. Soc., **15**, 1903, (33).

——— *holozona* n. sp. **Australia**. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (57).

*Eucallaenia ragonoti* n. sp. **Hering**, E. Stettiner ent. Ztg, **64**, 1903, (110).

*Euzophera* nn. spp. **Kashmir**, **Simla**. **Hampson**, Sir G. F. Bombay, J. Nat. Hist. Soc., **15**, 1903, (24).

——— *semifuneralis*. **Delaware**. **Sanderson**, E. D. Agric. Exp. Sta., Delaware, Newark, Rep., **1901**, (127-199, with 6 pls., 16 figs.). [Review], Washington, D.C., U.S. Dept. Agric. Off. Exp. Sta. Rec., **14**, 1902, (268-269).

*Euzopherodes* nn. spp. **Ceylon**, **Sikhim**. **Hampson**, Sir G. F. Bombay, J. Nat. Hist. Soc., **15**, 1903, (24).

——— *allocrossa* n. sp. **Australia**. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (57).

*Evergestis* nn. spp. **Rebel**, H. D. ent. Zs. Iris, Berlin, **16**, 1903, (6).

*Galleria melonella*, die Wachsmotten. von **U. T. Schweiz**. Landw. Zeitschr., Aarau, **30**, 1902, (730-732).

——— Beiträge zur Kenntnis der Anatomie der Raupe. **Metalnikoff**, S. Zool. Anz., Leipzig, **26**, 1903, (619-623).

*Glyphodes glauculalis*, **Green** and *G. marginata*, **Hmps.**, additional descriptions. **Hampson**, Sir G. F. Bombay, J. Nat. Hist. Soc., **15**, 1903, (216, with 1 pl.).

——— *praefulgida* n. sp. **Hering**, E. Stettiner ent. Ztg, **64**, 1903, (107, pl. I, fig. 125).

*Goniopalpia* n. gen., *G. delicatalis* n. sp. **Khasis**. **Hampson**, Sir G. F. Bombay, J. Nat. Hist. Soc., **15**, 1903, (19).

*Herculia medialis* n. sp. **Simla**. **Hampson**, Sir G. F. l.c. (206-225, with 1 pl.).

*Heterographis* nn. spp. **Australia**. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (57, 58).

——— *hellenica*, **Stgr.**, *H. derer-ticola*, **Stgr.**, *H. nireicostella*, **Rag.**, *H. craticulella* **Rag.** and 3 nn. spp. from **Deesa** and **Ceylon**. **Hampson**, Sir G. F. Bombay, J. Nat. Hist. Soc., **15**, 1903, (23).

*Homocosoma elongellum* n. sp. **Arizona**. **Dyar**, H. G. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (227).

——— *melanosticta* n. sp. **Australia**. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (58).

——— *nigrimedialis* n. sp., **Khasis**, *H. nimbella*, **Zell**, notes. **Hampson**, Sir G. F. . . . Ser. ii, pt. ix. **Bombay**, J. Nat. Hist. Soc., **15**, 1903, (21).

*Hypsipyla* nn. spp. **Sikhim** and **Ceylon**. **Hampson**, Sir G. F. l.c. (30, pl. C, fig. 26).

——— *robusta* **Moore**, **India** attacking "Tun" and **Mahogany**, description, life history, relations to forest-protection and remedies, points for observation. **Stebbing**, E. P. Departmental Notes on Insects that affect Forestry, No. 2. **Calcutta**, 1903, (312, pl. XIX, fig. 3a-c). 25 cm.

*Jocara thermoptera* n. sp. **Australia**. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (59).

*Lamacha angulifera* n. sp. **Khasis**. **Hampson**, Sir G. F. Bombay, J. Nat. Hist. Soc., **15**, 1903, (206-225, 1 pl.).

*Lambaesia* n. gen. (~ *Hypochealeia* **Hb.**), *L. caradjae* n. sp. **Rebel**, H. D. ent. Zs. Iris, Berlin, **16**, 1903, (1-8).

*Lamoria nigrisparsalis* n. sp. **Ceylon**. **Hampson**, Sir G. F. Bombay, J. Nat. Hist. Soc., **14**, 1903, (658).

*Lepidogma jordanalis* n. sp. **Rebel**, H. D. ent. Zs. Iris, Berlin, **15**, 1902, (100-126, mit 1 Taf.).

*Lepyrodes neptis*, **Cram.**, change of specific name to *L. pueritia*, **Cram.**, note on synonymy. **Hampson**, Sir G. F. Bombay, J. Nat. Hist. Soc., **15**, 1903, (217, 1 pl.).

*Luma longidentalis* n. sp. **Bhutan**. **Hampson**, Sir G. F. l.c. (206-225, 1 pl.).

- Lygropia chryselectra* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (64).
- Macna praetextata* n. sp. **Hering**, E. Stettiner ent. Ztg. **64**, 1903, (98).
- Marasmia hexagona* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (63).
- Maricopa lustrella* n. sp. Arizona. **Dyar**, H. G. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (227).
- Massepha ambialis* n. sp. Khasis. **Hampson**, Sir G. F. Bombay, J. Nat. Hist. Soc., **15**, 1903, (214).
- Melissopteryx agramma* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (49).
- Mescinia olivescalis* n. sp. Ceylon. **Hampson**, Sir G. F. Bombay, J. Nat. Hist. Soc., **15**, 1903, (25).
- Metasia* nn. spp. N.W. and Southern India. **Hampson**, Sir G. F. l.c. (206-225, 1 pl.).
- nn. spp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (66).
- Myelais pectinicornella*, note on larva. *M. ephestialis* n. sp. Simla and Sikkim. **Hampson**, Sir G. F. Bombay, J. Nat. Hist. Soc., **15**, 1903, (29).
- Nacoleia* nn. spp. Ceylon and Nilgiris. **Hampson**, Sir G. F. l.c. (206-225, 1 pl.).
- *cuprealis*, Moore, and *N. vulgalis* Guen. notes on synonymy. **Hampson**, Sir G. F. l.c. (215, 1 pl.).
- *xanthoscola* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (63).
- Nephopteryx* nn. spp. Australia. **Lower**, O. B. l.c. (53-56).
- *similella* Zinck, a new British Phycid. **Barrett**, C. G. Ent. Mag., London, **39**, 1903, (1).
- new for the Swedish fauna. (Swedish) **Lampa**, S. Entomol. Tidskr., Stockholm, **22**, 1901, (248).
- *riouella*, Rag., *N. fumosella*, Rag., *N. myrmidonella* Hag., *N. atrisquamella* Hampson, and 7 nn. spp. from Deesa, Ceylon, Madras, Simla, Belgaum and Bali. **Hampson**, Sir G. F. Bombay, J. Nat. Hist. Soc., **15**, 1903, (26-29).
- Noctuella dichroalis* n. sp. Ceylon. **Hampson**, Sir G. F. l.c. (206-225, 1 pl.).
- Noorda* nn. spp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (65).
- *albizonalis* n. sp. Sikkim. **Hampson**, Sir G. F. Bombay, J. Nat. Hist. Soc., **15**, 1903, (219).
- Nosophora chironalis*, Wek., changes in synonymy. *N. triguttalis*, Warr., addition to synonymy. **Hampson**, Sir G. F. l.c. (214, 1 pl.).
- Nymphula diplopa* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (62).
- *turbata*, Butt., raised to specific rank, *N. hamptoni* South, from Khasis, an additional species described. **Hampson**, Sir G. F. Bombay, J. Nat. Hist. Soc., **15**, 1903, (209, 1 pl.).
- Odontopaschia* n. gen., *O. virescens* n. sp. Khasis. **Hampson**, Sir G. F. l.c. (34).
- Oligostigma auropunctalis* n. sp. Bhutan. **Hampson**, Sir G. F. l.c. (206-225, 1 pl.).
- *encisa*, Swinh. from Assam, notes. **Hampson**, Sir G. F. l.c. (210, 1 pl.).
- Pachynoa*, Led reduced to synonymic rank see *Polygrammodes*, Guen. **Hampson**, Sir G. F. l.c. (217, 1 pl.).
- *fruhstorferi* n. sp. **Hering**, E. Stettiner ent. Ztg. **64**, 1903, (102).
- Pachyzancla phaeopterlis*, Guen additional description. **Hampson**, Sir G. F. Bombay, J. Nat. Hist. Soc., **15**, 1903, (218, 1 pl.).
- Pagoda pullalis* n. sp. Siam. **Swinhoe**, C. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (510-511).
- *quinquelineata* n. sp. **Hering**, E. Stettiner ent. Ztg. **64**, 1903, (101).
- Patissa fulvidorsalis* n. sp. Sikkim. **Hampson**, Sir G. F. Bombay, J. Nat. Hist. Soc., **15**, 1903, (19).
- *heldi* n. sp. Sumatra. **Hering**, E. Stettiner ent. Ztg. **64**, 1903, (68).
- Persicoptera chionozyga* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (60).

*Phlyctaenodes subitrealis* n. sp. Ceylon. **Hampson**, Sir G. F. Bombay, J. Nat. Hist. Soc., **15**, 1903, (206-225, 1 pl.).

*Phryganodes discipunctalis* n. sp. South Kanara. **Hampson**, Sir G. F. l.c. (206-225, 1 pl.).

*Phycita* nn. spp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (53).

———— *monopecten* n. nom. for *P. hyemalis* Butler, from Ceylon. *P. steniella*, notes. *P. hyemalis* transferred to *Nephopteryx*, and 4 nn. spp. from Sikhim, Deesa, and Kashmir. **Hampson**, G. F. Bombay, J. Nat. Hist. Soc., **15**, 1903, (27-31).

*Pileocera discalis* n. sp. Ceylon. **Hampson**, Sir G. F. l.c. (206-225, 1 pl.).

*Pionea* nn. spp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (218).

———— *allifimbrialis*, Wlk. Ceylon. *P. nypinsalis*, Wlk. from Sikhim described *P. aureolalis*, Led, *P. lencaialis*, Swinh. notes on synonymy; nn. spp. Chamba, Kashmir, Ceylon. **Hampson**, Sir G. F. Bombay, J. Nat. Hist. Soc., **15**, 1903, (221-222).

———— *leucura* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (67).

*Platamonia poecilura* n. sp. Sumatra. **Hering**, E. Stettiner ent. Ztg, **64**, 1903, (142, pl. I, fig. 59).

*Platytes trichialis* n. sp. Bombay. **Hampson**, Sir G. F. Bombay, J. Nat. Hist. Soc., **14**, 1903, (659).

*Polygrammodes grossalis* Guen. and *P. moeruealis* Walk. from Khasis described; *P. nigrilinealis* n. sp. Sikhim. **Hampson**, Sir G. F. l.c. (217-218).

*Polyocha pulverlalis*, Khasis, *P. ornata* nn. spp. Kangra Valley, *P. tricoloralis* n. nom. for *P. variegatella*, Hampson, *P. variegatella*, Rag. Note. **Hampson**, Sir G. F. l.c. (20-21).

*Psorosa* nn. spp. Simla, Sikhim. **Hampson**, Sir G. F. l.c. (22).

*Pytomaxia* n. gen., *P. trigonifera* n. sp. Ceylon. **Hampson**, Sir G. F. l.c. (26).

(x 2 9053)

*Pyralis*. **Dufour**, G. Chron. Agric., Lausanne, **15**, 1902, (319-328, av. 4 Fig.).

———— *prepalialis* n. sp. Sikhim. **Hampson**, Sir G. F. Bombay, J. Nat. Hist. Soc., **15**, 1903, (201).

———— *transcaspica* n. sp. **Rebel**, H. D. ent. Zs. Iris, Berlin, **16**, 1903, (3).

*Pyrausta* nn. spp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (67-68).

———— *macharalis*, Wlk., change in synonymy. nn. spp. Chamba, Kashmir. Deesa, Sikhim. **Hampson**, Sir G. F. Bombay, J. Nat. Hist. Soc., **15**, 1903, (223-224).

———— *machoerolis*, Wlk. Bombay, Berar, Central Provinces, Madras and Burma, attacking Teak. Description, life history, relations to forest-protection and remedies in the nursery, points for observation. **Stebbing**, E. P. Departmental Notes on Insects that affect Forestry. No. 2. Calcutta, 1903, (301, pls. XVIII+XIX, fig. 2). 25 cm.

———— *ochosalis* Fitch ms. **Dyar**, H. G. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (305).

———— *rockei* n. sp. **Bang-Haas in Rebel**, H. D. ent. Zs. Iris, Berlin, **15**, 1902, (100-126).

*Saluria minutella* n. sp. Deesa and Ceylon. **Hampson**, Sir G. F. Bombay, J. Nat. Hist. Soc., **15**, 1903, (20).

*Sandrabatis phaeella* n. sp. Sikhim. **Hampson**, Sir G. F. l.c. (25).

*Schoenobius aurivena* n. sp. Khasis. **Hampson**, Sir G. F. l.c. (20).

*Scoparia ingrattella* Tell. from Kashmir, notes; nn. spp. Nilgiris, Bombay, Khasis, Simla. **Hampson**, Sir G. F. l.c. (212-213, 1 pl.).

*Statina*, notes on the genus, *S. cashmiralis* n. sp. Kashmir. **Hampson**, Sir G. F. l.c. (20).

*Stemmatophora minoralis*, *S. subfloralis* from Ceylon. **Hampson**, Sir G. F. l.c. (207-208).

*Stenia rubriceps* n. sp. Dharmasala. **Hampson**, Sir G. F. l.c. (212).

*Stericta aleurota* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (59).



*Stericta suspensalis*, Wlk., notes and 2 nn. spp. **Hampson**, G. F. Bombay, J. Nat. Hist. Soc., **15**, 1903, (36).

*Sylepta homomorpha* Meyr. from Ceylon described, *S. multilinealis* Guen and *S. quadrimaculalis*, Koll. additional synonymy, *S. picalis* n. sp. **Khasis**. **Hampson**, Sir G. F. l.c. (216).

*Symphysa adelalis* n. sp. **Kearfott**, W. D. New York, N.Y., J. Ent. Soc., **11**, 1903, (145).

*Talis* nn. spp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (51).

*Tegostoma kabyralis* n. sp. **Bang-Haas** in **Rebel**, H. D. ent. Zs. Iris, Berlin, **15**, 1902, (100-126).

*Tegulifera phaeaptera* n. sp. Ceylon. **Hampson**, Sir G. F. Bombay, J. Nat. Hist. Soc., **15**, 1903, (207).

*Tephria glaucobasis* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (56).

*Teratausta* n. gen., *T. odontalis* n. sp. Silhet. **Hampson**, Sir G. F. Bombay, J. Nat. Hist. Soc., **15**, 1903, (225).

*Tirathaba chlorosema* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (219).

—— *irrufatella*, Rag. from Ceylon, notes. **Hampson**, Sir G. F. Bombay, J. Nat. Hist. Soc., **14**, 1903, (658).

*Titania pulchra* n. sp. **Alph** in **Rebel**, H. D. ent. Zs. Iris, Berlin, **15**, 1902, (100-126).

*Trichophyesis* nn. spp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (61).

—— *acutangulalis* n. sp. Palni Hills. **Hampson**, Sir G. F. Bombay, J. Nat. Hist. Soc., **15**, 1903, (207).

—— *cretacea*, Butler, note. **Hampson**, Sir G. F. l.c. (206, 1 pl.).

*Tyndis albidefinis* n. sp. Simla. **Hampson**, Sir G. F. l.c. (209).

*Tyspanodes metachrysalis* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (63).

*Vitula serratilineella*. **Dyar**, H. G. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (104).

## PTEROPHORIDAE.

### SPECIAL.

*Acipitilia nirex* n. sp. **Snellen**, P. C. T. s' Gravenhage, Tijdschr. Ent., **46**, [1903], (56, pl. V, fig. 17).

*Oxyptilus geodactylus* n. sp. **Fuchs**, A. Stettiner ent. Ztg., **64**, 1903, (3-16).

—— *heterodactyla*, characters, habits. **Crombrughe de Picquendaels**, de. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (103).

*Platyptilia* (?) *asiatica* n. sp. **Bang-Haas** in **Rebel**, H. D. ent. Zs. Iris, Berlin, **15**, 1903, (100-126).

—— *marmarodactyla* n. sp. United States. **Dyar**, H. G. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (296).

—— *rhusiodactyla* n. sp. **Fuchs**, A. Stettiner ent. Ztg., **64**, 1903, (14).

—— *sythoffi* n. sp. **Snellen**, P. C. T. s' Gravenhage, Tijdschr. Ent., **46**, [1903], (54, pl. V, figs. 15, 16).

*Pterophorus* nn. spp. Arizona. **Dyar**, H. G. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (228).

*Stenoptilia schwarzi* n. sp. Arizona. **Dyar**, H. G. l.c. (228).

## ALUCITIDAE.

*Orneodes hexadactyla* in Idaho. **Aldrich**, J. M. Philadelphia, Pa., Ent. News Acad. Nat. Sci., Amer. Ent. Soc., **13**, 1902, (156).

—— at Ithaca, N.Y. **Houghton**, C. O. l.c. (89).

## TORTRICIDAE.

### GENERAL.

**Mährlem**. Die Bekämpfung des Springwurmwicklers. Mitt. Weinbau, Geisenheim, **15**, 1903, (50-54, 72-76).

**Malloch**, J. R. Further notes on the Tortricidae of Dumbartonshire. Ent. Mag., London, **39**, 1903, (3-4).

**Zehntner**, L. . . . . Mottenbekämpfung . . . . . (Holländisch) Salatiga, Bull. Cacao, **5**, 1903, (1-53, mit 1 Taf.).

## SPECIAL.

*Archips granadanus* n. sp. Spain. **Walsingham**, *Lord. Ent. Mag.*, London, **39**, 1903, (183).

*Arotrophora cosmoplaca* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., *Trans. R. Soc.*, **27**, 1903, (219).

*Atychia* nn. spp. Australia. **Lower**, O. B. *l.c.* (68).

*Caeoecia obsoletana*. **Slingerland**, M. V. Agric. Exp. Sta., New York, (Cornell Station), Ithaca, Bull., No. **190**, 1901, (143-164, with 15 figs.); [Review], Washington, D.C., U. S. Dept. Agric., Off. Exp. Sta. Rec., **13**, 1901, (371-372).

*Carpocapsa*, nomenclature. **Busck**, A. New York, N.Y., *J. Ent. Soc.*, **11**, 1903, (106-111).

—— *pomonana*. Schweiz. Landw. Zeitschr., Aarau, **30**, 1902, (934-935).

—— *pomonella*, life history. **Gillette**, C. P. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **31**, 1902, (1-23).

—— number of broods. **Gillette**, C. P. Philadelphia, Pa., *Ent. News Acad. Nat. Sci.*, **13**, 1902, (193-196).

—— cycles of generation. **Simpson**, C. B. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., No. **40**, 1903, (63-65).

—— habits. **Simpson**, C. B. *l.c.* (N. Ser.), No. **30**, 1901, (51-75); No. **41**, 1903, (105).

*Cerace triphaenella* n. sp. **Snellen**, P. C. T. s' Gravenhage, *Tijdschr. Ent.*, **46**, [1903], (26).

*Cnephasia sciaphila laetana* Styr., note. **Chrétien**, P. *Naturaliste*, Paris, (sér. 2), **23**, 1903, (11-12).

*Conchylis*: contro [di essa]. **Berlese**, A. *Bollettino di Entomologia agraria*, Padova, **9**, 1902, (82-86, con fig.).

*Conchylis ambiguella*, Bekämpfung. **Lenert**, A. *Erfahrungen in der Bekämpfung des Heu- und Sauerwurms*. Trier (J. Lintz), 1903, (36, mit 1 Taf.). 22 cm. 0,80 M.

—— *austriana*, nouvelle *Conchylis* cécidogène. **Chrétien**, P. *Naturaliste*, Paris, (sér. 2), **24**, 1902, (257-258).

(N 2-9053)

*Conchylis (Coccyx) suaveolana* n. sp. **Fuchs**, A. *Stettiaer ent. Ztg*, **64**, 1903, (6).

*Cynolamia faillana* n. sp. **Fuchs**, A. *l.c.* (7).

*Epinotia* nn. spp. Arizona. **Dyar**, H. G. Washington, D.C., *Proc. Ent. Soc.*, **5**, 1903, (230-231).

*Eucelis malcolmiae* n. sp. Spain and Morocco. **Walsingham**, *Lord. Ent. Mag.*, London, **39**, 1903, (213-214).

*Eucosma* nn. spp. North America. **Dyar**, H. G. Washington, D.C., *Proc. Ent. Soc.*, **5**, 1903, (179-180, 229, 297).

*Evetria neomezicana* n. sp. **Dyar**, H. G. *l.c.* (285-286).

*Grapholitha conterminata*. H. S. (fin). **Pierre**, *Abbé. Echange*, Lyon, **17**, 1902, (28-29).

*Laspeyresia* nn. spp. Spain and Morocco. **Walsingham**, *Lord. Ent. Mag.*, London, **39**, 1903, (209-211).

*Loxopera rubiginana* n. sp. Morocco and Algeria. **Walsingham**, *Lord. l.c.* (183).

*Pammene* nn. spp. Morocco. **Walsingham**, *Lord. l.c.* (211-213).

—— *reliella* Clerck, *Metamorphose, Generationscyclen*. **Rodri-anko**, V. N. Moskva, Dnev. Zool. Otd. *Imp. Obsč. ĭub. jest.*, **III**, 5, 1903, (28-41). 35 cm.

*Phalonia* nn. spp. Spain and Morocco. **Walsingham**, *Lord. l.c.* (184-186).

—— *unistrigana* n. sp. Arizona. **Dyar**, H. G. Washington, D.C., *Proc. Ent. Soc.*, **5**, 1903, (232).

*Phoxopteris comptana*. **Smith**, J. B. Agric. Exp. Sta., New Jersey, New Brunswick, Bull., No. **149**, 1901, (17, with 2 pls.). 23 cm.; [review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., **13**, 1901, (161).

*Phthiniolophus* n. gen., *P. indentatus* n. sp. **Dyar**, H. G. Washington, D.C., *Proc. Ent. Soc.*, **5**, 1903, (306-307).

*Retinia buoliana* injuring Scotch pine. **Pack-Beresford**. *Irish Nat.*, Dublin, **12**, 1903, (299).

—— *turionanae*, schädliches Auftreten, allgemeine Bemerkungen über die Lebensweise der Retinien überhaupt. **Ritzema Bos**, J. *Centralbl.*

2 x 2

Bakt., Jena, Abt. 2, **10**, 1903, (241-250).

*Steganoptycha tantuliana* n. sp. **Fuchs**, A. Stettiner ent. Ztg, **64**, 1903, (241).

*Thiodia stygiana* n. sp. Arizona. **Dyar**, H. G. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (220).

*Tortricomorpha* nn. spp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (69-70).

*Tortrix* nn. spp. **Fuchs**, A. Stettiner ent. Ztg, **64**, 1903, (1-2).

——— *dorsulana* n. sp. Arizona. **Dyar**, H. G. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (231).

### TINEIDAE.

#### GENERAL.

**Busck**, A. A revision of the American moths of the family *Gelechiidae*, with descriptions of new species. Washington, D.C., Smithsonian Inst., Nation. Mus. Proc., **25**, 1903, (767-938, with pl.).

——— [North American *Yponomeutidae*.] New York, N.Y., J. Ent. Soc., **11**, 1903, (45-59).

**Clément**, A. L. La teigne du crin. Nature, Paris, **30**, (2<sup>e</sup> sem.), 1902, (251-252).

**Malloch**, J. R. Further notes on the Tineina of Dumbartonshire. Ent. Mag., London, **39**, 1903, (3-1).

**Turner**, A. J. Revision of Australian Lepidoptera. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, **28**, 1903, (42-92).

**Turner**, H. J. Notes on various Coleophorids. Ent. Rec., London, **15**, 1903, (88-92).

**Zehntner**, L. . . . . Mottenbekämpfung . . . . . (Holländisch) Salatiga Bull. Cacao, **5**, 1903, (1-53, mit 1 Taf.).

#### SPECIAL.

*Alabaena* nn. spp. N. America. **Busck**, A. New York, N.Y., J. Ent. Soc., **11**, 1903, (53-55).

*Acompaia mesczona* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (225).

*Adela anatolica* n. sp. **Rebel**, H. D. ent. Zs. Iris, Berlin, **15**, 1902, (100-126).

*Agriophara tephroptera* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (230).

*Alabonia* nn. spp. Morocco and Spain. **Walsingham**, Lord. Ent. Mag., London, **39**, (292-293).

*Anacampsis* nn. spp. America. **Busck**, A. Washington, D.C., Smithsonian Inst., Nation. Mus., Proc., **25**, 1903, (848).

——— *biformella* n. sp. **Schüttze**. Ent. Zs., Guben, **16**, (1902-03), 1902, (13).

——— *coterdalella* n. sp. N. Jersey. **Kearfott**, W. D. New York, N.Y., J. Ent. Soc., **11**, 1903, (162, pl. IX, fig. 13).

——— *polychromella* n. sp. **Rebel**, H. D. ent. Zs. Iris, Berlin, **15**, 1902, (100-126).

*Apodia* nn. spp. Spain and Morocco. **Walsingham**, Lord. Ent. Mag., London, **39**, 1903, (263-264).

*Apnoacrema kearfottella* n. sp. America. **Busck**, A. Washington, D.C., Smithsonian Inst., Nation. Mus. Proc., **25**, 1903, (842).

*Argyresthia prenjella* n. sp. Hercegovina. **Rebel**, H. Wien, Verh. Zool.-Bot. Ges., **51**, 1901, (802).

*Aristeis macrotricha* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (225).

*Aristotelia* nn. spp. America. **Busck**, A. Washington, D.C., Smithsonian Inst., Nation. Mus. Proc., **25**, 1903, (799-804).

*Attera* nn. spp. Australia. **Turner**, A. J. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, **28**, 1903, (79).

*Atychia caradjae* n. sp. **Rebel**, H. D. ent. Zs. Iris, Berlin, **15**, 1902, (100-126).

*Autoneda* n. nom. = *Neda* Chambers. **Busck**, A. Washington, D.C., Smithsonian Inst., Nation. Mus. Proc., **25**, 1903, (782).

*Batrachedra stegodyphobius* n. sp. Orange River Colony. **Walsingham**, Lord. Ent. Mag., London, **29**, 1903, (166-167).

——— notes on commensalism with *Stegodyphus*. **Pyccock**, R.I. l.c. (167-170).

*Boletobia fuliginosa*, colonie de. **Smits**, A. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (224).

*Borkhausenia callioptis* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (226).

—— *haasi* (*rebeli*) B. Haas Preisl. No. 45) n. sp. **Rebel**, H. D. ent. Zs. Iris, Berlin, **15**, 1902, (100-126).

—— *ingathella* n. sp. Morocco. **Walsingham**, Lord. Ent. Mag., London, **39**, 1903, (293).

—— *kokujeri* sp. n. Russia orient. **Krullikovskij**, L. Rev. Russ. Ent., Jaroslavl, **3**, 1903, (177-182).

*Brackenridgia* n. gen., type *Incurvaria acerifoliella* Fitch. **Busck**, H. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (193).

*Cacogamia* n. gen., *C. elegans*, *C. (?) luteella* nn. spp. **Snellen**, P. C. T. s' Gravenhage, Tijdschr. Ent., **46**, [1903], (48-50, pl. V., figs. 10-14).

*Caesura maculopa* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (224).

*Cemistoma aceris* n. sp. **Fuchs**, A. Stettiner ent. Ztg., **64**, 1903, (245).

*Ceratophora phoxopterella* n. sp. **Snellen**, P. C. T. s' Gravenhage, Tijdschr. Ent., **46**, [1903], (41, pl. IV, figs. 11, 12).

*Cerostoma* nn. spp. North America. **Busck**, A. New York, N.Y., J. Ent. Soc., **11**, 1903, (48-52).

*Chorcutis myllerana*, var. *holotoxa* n. var. Alps. **Meyrick**, E. Ent. Mag., London, **39**, 1903, (5-6).

*Chrysoryctis* nn. spp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (238).

*Coleophora* nn. spp. **Fuchs**, A. Stettiner ent. Ztg., **64**, 1903, (10-13).

*Copropitilia* n. gen., *C. glebicolorella* n. sp. **Snellen**, P. C. T. s' Gravenhage, Tijdschr. Ent., **46**, [1903], (32-34, pl. V, figs. 4, 5).

*Cryptophaga* nn. spp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (198-199).

—— *gypsomera* n. sp. Australia. **Lower**, O. B. Lc. (70).

*Cryptophaga stipella* n. sp. **Snellen**, P. C. T. s' Gravenhage, Tijdschr. Ent., **46**, [1903], (31, pl. V, figs. 1, 2).

*Dasyx* n. gen., *D. barbatus*, Chr. for *Morphaga barbata*, Chr.; *D. rugosellus*, Stn., synonymy. **Durrant**, J. H. Calcutta, Ind. Mus. Notes, **5**, 1903, (92).

*Deoclona* n. gen., *D. yuccasella* n. sp. America. **Busck**, A. Washington, D.C., Smithsonian Inst., Nation. Mus. Proc., **25**, 1903, (837).

*Depressaria depressella* H b. var., *prangosella* n. var., nn. spp. Spain and Morocco. **Walsingham**, Lord. Ent. Mag., London, **39**, 1903, (266-268).

—— *semenovi* n. sp. Russia orient. sept. **Krullikovskij**, L. Rev. Russ. Ent., Jaroslavl, **3**, 1903, (30-32).

—— *uhrykella* n. sp. **Fuchs**, A. Stettiner ent. Ztg., **64**, 1903, (244).

*Didactylota althiermella* n. sp. S. Europe. **Walsingham**, Lord. Ent. Mag., London, **39**, 1903, (265).

*Diplodoma palaestinella* n. sp. **Rebel**, H. D. ent. Zs. Iris, Berlin, **15**, 1902, (100-126).

*Dissocetena albidella* n. sp. **Bang-Haas** in **Rebel**, H. Lc. (100-126).

*Epidictica* n. gen., *E. calliphyla*, *E. thiospila* nn. spp. Australia. **Turner**, A. J. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, **28**, 1903, (81).

*Epimenia* [*Epermenia*] nn. spp. **Kearfott**, W. D. New York, N.Y., J. Ent. Soc., **11**, 1903, (162-164).

*Epithectis sylvicoella* n. sp. America. **Busck**, A. Washington, D.C., Smithsonian Inst., Nation. Mus., Proc., **25**, 1903, (818).

*Epopsia* n. gen., *E. metreta* n. sp. Australia. **Turner**, A. J. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, **28**, 1903, (90).

*Eudrymopsis* n. gen., *E. xyloscopa* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (228).

*Eulecra atradelpha* n. sp. Australia. **Lower**, O. B. Lc. (221).

*Eusynopa* n. gen. **Lower**, O. B. Lc. (237).

*Gelechia* nn. spp. America. **Busck**, A. Washington, D.C., Smithsonian Inst., Nation. Mus., Proc., **25**, 1903, (856-889).

—— (*Recurvaria*) *nanella* Hb., life history. **Houghton**, J. T. Ent. Mag., London, **39**, 1903, (219-221).

*Gelechia (Lita) nordlandicolella* n. sp. Norwegen: **Strand**, E. Ent. Zs., Guben, **16**, (1902-03), 1902, (21).

——— *operculella*. California. **Clarke**, W. T. Agric. Exp. Sta., California, Berkeley, Bull., No. **135**, 1901, (30, with 10 figs.). 23 cm.; [review], Washington, D.C.; U. S. Dept. Agric. Off. Exp. Sta. Rec., **13**, 1902, (765-766).

——— *similella* n. sp. **Snellen**, P. C. T. s' Gravenhage, Tijdschr. Ent., **46**, [1903], (44, pl. V, figs. 5-6).

*Gnorimoschema* nn. spp. America. **Busck**, A. Washington, D.C., Smithsonian Inst., Nation. Mus. Proc., **25**, 1903, (825-834).

——— nn. spp. **Kearfott**, W. D. New York, N.Y., J. Ent. Soc., **11**, 1903, (158-160).

*Gracilaria strassenella* n. sp. Antarktisches Gebiet. **Enderlein**, G. Wissenschaftliche Ergebnisse der deutschen Tiefsee-Expedition, **3**, Lfg 7, Jena, 1903, (251).

*Greya* n. gen. related to *Incurvaria*. **Busck**, A. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (194).

*Guestia* ? nn. spp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (226-227).

*Harpella aureatella* n. sp. **Snellen**, P. C. T. s' Gravenhage, Tijdschr. Ent., **46**, [1903], (47, pl. IV, fig. 13).

*Hedycharis* n. gen., *H. phoenobapta* n. sp. Australia. **Turner**, A. J. Sydney, N.S.W., Proc. Linn. Soc., N. S. Wales, **28**, 1903, (90).

*Heliocausta* nn. spp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (220).

*Holoscolia* nn. spp. **Rebel**, H. D. ent. Zs. Iris, Berlin, **15**, 1902, (100-126).

*Hoplitica rhodopepla* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (221).

*Hypsophus helianthemii* n. sp. Spain. **Walsingham**, Lord. Ent. Mag., London, **39**, 1903, (265-266).

*Hyponomeuta malinella*, Winterquartier. **Lucas**, E. Pomol. Monatshefte., Stuttgart, **49**, 1903, (77-78).

*Iphierga crypsilopha* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (73).

——— *polyzona* n. sp. Australia. **Lower**, O. B. l.c. (239).

*Lactura eupocella* n. sp. Australia. **Turner**, A. J. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, **28**, 1903, (86).

*Lecithocera* nn. spp. **Snellen**, P. C. T. s' Gravenhage, Tijdschr. Ent., **46**, [1903], (35-37, pl. IV, figs. 6-8).

*Lepidoscia* nn. spp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (234-237).

——— *melanogramma* n. sp. Australia. **Lower**, O. B. l.c. (71).

*Limnoccia xanthopella* n. sp. Australia. **Lower**, O. B. l.c. (231).

*Linosticha* nn. spp. Australia. **Lower**, O. B. l.c. (222).

*Lita trinella* n. sp. **Fuchs**, A. Stettiner ent. Ztg., **64**, 1903, (9).

*Lithocolletis hamameliella* n. sp. **Busck**, A. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (189).

*Macrozygona* n. gen., *M. microtoma* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (200).

*Malacotricha deceptella* n. sp. **Snellen**, P. C. T. s' Gravenhage, Tijdschr. Ent., **46**, [1903], (49, pl. IV, fig. 9).

*Megacraspedus pusillus* n. sp. Spain. **Walsingham**, Lord. Ent. Mag., London, **39**, 1903, (266).

*Micropteryx kardamylensis* n. sp. Morea. **Rebel**, H. Nachtrag. Berliner ent. Zs., **48**, 1903, (248).

*Mompha conturbatella* H. B., description of the larva and pupa. **Banks**, E. R. Ent. Mag., London, **39**, 1903, (133-136).

*Narycia* nn. spp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (231-237).

*Neodactylota* n. gen., *N. barberella* n. sp. America. **Busck**, A. Washington, D.C., Smithsonian Inst., Nation. Mus., Proc., **25**, 1903, (835-836).

*Ocytola paralia* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (225).

*Olycha* n. gen., *O. grosscpunctella* n. sp. **Snellen**, P. C. T. s' Gravenhage, Tijdschr. Ent., **46**, [1903], (28, 29, pl. IV. figs. 2, 3).

*Opazyga* n. gen., *O. eugramma* nn. spp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (230).

*Paltodora* nn. spp. America. **Busck**, A. Washington, D.C., Smithsonian Inst., Nation. Mus. Proc., **25**, 1903, (776-778).

*Paralechia* n. gen. America. **Busck**, A. l.c. (820).

*Philobata* nn. spp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (223).

*Pleurota minimella* n. sp. **Rebel**, H. D. ent. Zs. Iris, Berlin, **15**, 1902, (100-126).

*Procometis* nn. spp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (199-200).

*Prodoxus*, North American species. **Dyar**, H. G. New York, N.Y., J. Ent. Soc., **11**, 1903, (102-104).

*Pronuba*, North American species. **Dyar**, H. G. l.c. (102-104).

*Prontomeus* n. gen., *P. brunneus* n. sp. America. **Busck**, A. Washington, D.C., Smithsonian Inst., Nation. Mus. Proc., **25**, 1903, (837-838).

*Prototechia* n. gen. Australia. **Meyrick**, E. Ent. Mag., London, **39**, 1903, (291).

*Pseradia* nn. spp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (227-228).

—— *pseudocythrella* n. sp. **Rebel**, H. D. ent. Zs. Iris, Berlin, **15**, 1902, (100-126).

*Recurvaria* nn. spp. America. **Busck**, A. Washington, D.C., Smithsonian Inst., Nation. Mus. Proc., **25**, 1903, (810-814).

—— nn. spp. **Kearfott**, W. D. New York, N.Y., J. Ent. Soc., **11**, 1903, (154-157).

*Saropla poliochra* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (224).

*Scardia porphyrea* n. sp. Australia. **Lower**, O. B. l.c. (74).

—— *xanthobapta* n. sp. Australia. **Lower**, O. B. l.c. (233).

*Scythris* nn. spp. **Rebel**, H. D. ent. Zs. Iris, Berlin, **15**, 1902, (100-126).

*Stagmatophora dimella* Cst. n'est pas cécidogène. **Chrétien**, P. Paris, Bull. soc. ent., **1902**, (261-264).

*Steganoptycha pyricolana*, orchard pest. **Sanderson**, E. D. Agric. Exp. Sta., Delaware, Newark, Bull., No. **53**, 1901, (19, with 11 figs.). 23 cm.; [review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta., Rec., **13**, 1902, (872-873).

*Symmoris* nn. spp. **Rebel**, H. D. ent. Zs. Iris, Berlin, **15**, 1902, (100-126).

—— *zeitunella* n. sp. **Bang-Haas** in **Rebel**, H. l.c. (100-136).

*Telecrates streptogramma* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (229).

*Telphusa betulella*. America. **Busck**, A. Washington, D.C., Smithsonian Inst., Nation. Mus. Proc., **25**, 1903, (788).

*Thaumatopeis daeckeeillus* n. sp. **Kearfott**, W. D. New York, N.Y., J. Ent. Soc., **11**, 1903, (149).

*Trachoma walsinghamiella* n. sp. N. America. **Busck**, A. l.c. (57).

*Trichotaphe fernaldella* n. sp. America. **Busck**, A. Washington, D.C., Smithsonian Inst., Nation. Mus. Proc., **25**, 1903, (915).

*Trypanisma fagella* n. sp. America. **Busck**, A. l.c. (816).

*Xenopathia nitea* n. sp. **Rebel** H. D. ent. Zs. Iris, Berlin, **15**, 1902, (100-126).

*Xylorycta philonympha* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (229).

■ *Xymmatodoma* un. spp. Australia. **Lower**, O. B. l.c. (71-73).

*Ypsolophus lygropa* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (70).

—— *pometellus*. **Slingerland**, M. V. Agric. Exp. Sta., New York, (Cornell station). Ithaca, Bull., No. **187**, 1901, (77-101, with 9 figs.); [review], Washington, D.C., U. S. Dept. Agric., Off. Exp. Sta., Rec., **13**, 1901, (68).

*Zaratha cramerella* . . . neue Futterpflanze. (Holländisch) **Zehntner**, L. Salatiga, Bull. Cacao, **4**, 1902, (53-56).

*Zaratha cramerella* [Cacnomotte]  
Bekämpfung. (Holländisch) **Zehntner**,  
L. l.c. 5, 1903, (1-53, mit 1 Taf.).

*Zelleria celsastruella* n. sp. **Kearfott**,  
W. D. New York, N.Y., J. Ent. Soc.,  
11, 1903, (150, pl. IX, fig. 1).

# UNCLASSIFIED BY THE SLIP- MAKER.

*Coradina pulmonaris*. de **Rougemont**,  
F. Arch. Sci. Phys., Genève, [4], 16,  
1903, (731-732).

## LIST OF NEW GENERA AND SPECIES.

### ABAGROTIS [Noctuidae].

— *ornatus*. Smith. 624.

### ABEBAEA [Tineidae].

— *cockerella*. Busck. 65.  
— *delicatella*. Busck. 65.  
— *gerdanella*. Busck. 65.  
— *nella*. Busck. 65.  
— *querciella*. Busck. 65.

### ABISARA [Erycinidae].

— *abbuna*. Heller. 309.  
— *huntei*. Sharp. 583.  
— *meta*. Fruhstorfer. 198.  
— *schedeli*. Fruhstorfer. 198.

### ABRAXAS [Geometridae].

— *sylvata*: *continua* n. ab.  
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**Abynotha** n. gen. [Lymantridae].  
Swinhoe. 654.

### ACANTHARCTIA [Arctiidae].

— *aurivillii*. Bartel. 26.  
— *fuscoza*. Bartel. 26.

### Acanthocoles n. gen. [Noctuidae].

— *Turner*. 677.  
— *eucesta*. Turner. 677.

### ACARA [Pyralidae].

— *dohrni*. Hering. 310.

### ACHERONTIA [Sphingidae].

— *styz erathis* n. nom. Roth-  
schild and Jordan. 539A.

### ACIDALIA [Geometridae].

— *afflata*. Fuchs. 246.  
— *anaitaria*. Herz. 315.  
— *cajanderi*. Herz. 315.  
— *carpheraria*. Hampson. 302.  
— *contioptera*. Hampson. 302.  
— *infantilaria*. Fuchs. 246.  
— *lucellata*. Püngeler. 494.

### ACIDALIA [Geometridae].

— *marmorata*. Hampson. 302.  
— *methaemaria*. Hampson.  
302.  
— *perpulveria*. Hampson. 302.  
— *pulchrifascia*. Hampson.  
302.  
— *remissata*. Fuchs. 246.  
— *salebrosaria*. Fuchs. 246.  
— *subcineta*. Dognin. 121.  
— *tenuispersata*. Fuchs. 246.

### ACIPTILIA [Pterophoridae].

— *nivea*. Snellen. 632.

### ACOMPSIA [Tineidae].

— *mesozona*. Lower. 401.

### ACONTIA [Noctuidae].

— *alexandra*. Smith. 621.  
— *disconnecta*. Smith. 621.  
— *huita*. Smith. 621.

### ACOSMERYX [Sphingidae].

— *anceus*: *subdentata* n. subsp.  
Rothschild and Jordan.  
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— *castanea*. Rothschild and  
Jordan. 539A.  
— *omissa*. Rothschild and  
Jordan. 539A.

### ACRAEA [Nymphalidae].

— *anemosa* var. *interrupta* n.  
var. *Thurau*. 667.  
— *emini*. Weymer. 713.  
— *fulleborni*. Thurau. 668.  
— *goetzei*. Thurau. 668.  
— *guillelmi* var. *manca* n.  
var. *Thurau*. 667.  
— *igola*: *leonina* n. subsp.  
Bethune and Baker. 36.  
— *terpsichore* ab. *connexa*.  
Thurau. 667.  
— ab. *excentrica*.  
Thurau. 667.  
— *wisemanni*. Weymer. 713.

### Acrobyla n. gen. [Noctuidae]. Rebel.

— *kneuckeri*. Rebel. 502.

### ACRONYCTA [Noctuidae].

— *psorallina*. Lower. 399.  
— *pfizenmaieri*. Herz. 314.

### ACROTOMODES [Geometridae].

— *cretinotata*. Dognin. 121.

### ACTENIA [Pyralidae].

— *orbicentralis*. Rebel. 500.

### ACTINOTE [Nymphalidae].

— *chea*. Druce. 129.  
— *elatus*. Druce. 129.  
— *arsanda*. Druce. 129.

- ADELA** [Tineidae].  
 ————— *anatolica*. Rebel. 500.
- ADELPIA** [Nymphalidae].  
 ————— *deborah*. Weeks. 706.  
 ————— *helepecki*. Weeks. 700.
- Adeta** n. gen. [Geometridae]. Warren, 702.  
 ————— *semifascia*. Warren. 702.
- Aeschrostoma** n. gen. [Geometridae]. Warren. 702.  
 ————— *marmorata*. Warren. 702.
- AETHILLA** [Hesperiidae].  
 ————— *subviolacea*. Mabille. 406.
- AGANAIS** [Hypsidae].  
 ————— *concolora*. Swinhoe. 655.  
 ————— *conspicua*. Swinhoe. 655.
- AGATHIA** [Geometridae].  
 ————— *conjunctiva*. Warren. 702.  
 ————— *obnubilata*. Warren. 702.
- Agnosia** n. gen. [Sphingidae]. Rothschild and Jordan. 539a.
- AGRIAS** [Nymphalidae].  
 ————— *claudia*: *lugina* n. subsp. Fruhstorfer. 228.  
 ————— *claudia*: *sara* n. subsp. Fruhstorfer. 228.
- AGRIOPHARA** [Tineidae].  
 ————— *tephroptera*. Lower. 401.
- AGROTIS** [Noctuidae].  
 ————— *aldani*. Herz. 315.  
 ————— *coniorta*. Hampson. 300.  
 ————— *coniotis*. Hampson. 300.  
 ————— *ecstrigata*. Hampson. 300.  
 ————— *eugramma*. Hampson. 300.  
 ————— *intolerabilis*. Püngeler. 494.  
 ————— *jalapa*. Hampson. 300.  
 ————— *kolymae*. Herz. 314.  
 ————— *obuncula*. Hampson. 300.  
 ————— *poliogramma*. Hampson. 300.  
 ————— *vega*. Herz. 315, 314.
- Akbestia** n. gen. [Sphingidae]. Rothschild and Jordan. 539a.
- ALABONIA** [Tineidae].  
 ————— *chapmani*. Walsingham. 694.  
 ————— *herculeella*. Walsingham. 694.
- ALBUNA** [Sesiidae].  
 ————— *beutenmülleri*. Skinner. 611.
- ALCIS** [Geometridae].  
 ————— *flaccida*. Warren. 702.  
 ————— *papuensis*. Warren. 702.  
 ————— *decolor* n. ab. Warren. 702.  
 ————— *maculata* n. ab. Warren. 702.  
 ————— *ocellata* n. ab. Warren. 702.
- ALEURON** [Sphingidae].  
 ————— *cymographum*. Rothschild and Jordan. 539a.  
 ————— *neglectum*. Rothschild and Jordan. 539a.
- Amaloptila** n. gen. [Noctuidae]. Turner, 677.  
 ————— *triorbis*. Turner. 677.
- ANASTUS** [Arctiidae].  
 ————— *antonio*. Dognin. 121.  
 ————— *episcotosia*. Dognin. 121.  
 ————— *polystrigata*. Dognin. 121.
- AMAURIS** [Nymphalidae].  
 ————— *echeria* var. *oscarus* n. var. Thureau. 667.  
 ————— *hecate*: *stictica* n. subsp. Rothschild and Jordan. 543.  
 ————— *hecatoides*. Aurivillius. 8.  
 ————— *niavius*: *aethiops* n. subsp. Rothschild and Jordan. 543.  
 ————— *ochleides*: *darius* n. subsp. Rothschild and Jordan. 543.
- AMAXIA** [Arctiidae].  
 ————— *flavipuncta*. Hampson. 299.
- AMBIA** [Pyralidae].  
 ————— *cyanealis*. Hampson. 302.  
 ————— *dohrni*. Hering. 310.
- AMBLYTODIA** [Lycaenidae].  
 ————— *annetta*: *annettina* n. subsp. Fruhstorfer. 221.
- AMBLYPTERUS** [Sphingidae].  
 ————— *ypsilon*. Rothschild and Jordan. 539a.
- AMBULYX** [Sphingidae].  
 ————— *triecta*. Aurivillius. 8.
- AMOLITA** [Noctuidae].  
 ————— *obliqua*. Smith. 621.  
 ————— *roscola*. Smith. 621.
- AMORPHA** [Sphingidae].  
 ————— *amurensis*: *sinica* n. subsp. Rothschild and Jordan. 539a.



- Ampeloeca** n. gen. [Sphingidae].  
Rothschild and Jordan.  
539A.
- Amphimoea** n. gen. [Sphingidae].  
Rothschild and Jordan.  
539A.
- AMPHICALLIA** [Arctiidae].  
— *piceosignata*. Bartel. 26.
- AMTNA** [Noctuidae].  
— *spilonota*. Lower. 399.
- ANACAMPSIS** [Tineidae].  
— *biformella*. Schütze. 568.  
— *coverdalella*. Kearfott. 354.  
— *cyclella*. Busck. 63.  
— *paltodoriella*. Busck. 63.  
— *polychromella*. Rebel. 500.
- Anambulyx** n. gen. [Sphingidae].  
Rothschild and Jordan.  
539A.
- ANAPALTA** [Geometridae].  
— *aurifera*. Warren. 702.
- Anaphosia** n. gen. [Arctiidae]. Hamp-  
son. 299.  
— *cyanogramma*. Hampson.  
299.
- ANARTA** [Noctuidae].  
— *laerta*. Smith. 624.  
— *lamuta*. Herz. 314.
- ANATOLE** [Erycinidae].  
— *modesta*. Mengel. 415.
- ANATOLMIS** [Hesperiidae].  
— *regulus*. Grinnell. 283.
- ANAXITA** [Arctiidae].  
— *sophia*. Dognin. 121.
- Anepa** n. gen. [Lymantridae]. Swinhoe.  
654.
- ANERASTIA** [Pyrilidae].  
— *minoralis*. Lower. 399.  
— *ziplimela*. Lower. 399.
- Angelia** n. gen. [Geometridae]. Lower.  
400.  
— *callisarca*. Lower. 400.  
— *tephrochroa*. Lower. 400.
- ANGONYX** [Sphingidae].  
— *meeki*. Rothschild and  
Jordan. 539A.  
— *testacea*; *papwana* n. subsp.  
Rothschild and Jordan.  
539A.
- Aniserpetes** n. gen. [Geometridae].  
Warren. 702.  
— *purpureoviridis*. Warren.  
702.  
— *sordida*. Warren. 702.
- ANISOCOLPIA** [Geometridae].  
— *aroensis*. Warren. 702.
- ANISODES** [Geometridae].  
— *aequalipunctata*. Dognin.  
121.  
— *marginipunctata*. Dognin.  
121.
- ANISOGAMIA** [Geometridae].  
— *albifimbria*. Warren. 700.  
— *coerulea*. Warren. 702.  
— *rufipunctata*. Warren. 702.
- ANISOPKRAS** [Geometridae].  
— *proxima*. Dognin. 121.
- ANISOTHRIX** [Pyrilidae].  
— *nobilis*. Druce. 128.
- ANOMOEOTES** [Zygaenidae].  
— *nox*. Aurivillius. 8.
- Anosiodes** n. gen. [Geometridae].  
Warren. 702.  
— *hybrida*. Warren. 702.
- Antanartia** n. gen. [Nymphalidae].  
Rothschild and Jordan.  
543.  
— *schaeneia*; *diluta* n. subsp.  
Rothschild and Jordan.  
543.
- Antarchia** n. gen. [Geometridae].  
Warren. 702.  
— *subrubescens*. Warren. 702.
- ANTEROS** [Erycinidae].  
— *carus*. Godman. 280.
- ANTHELA** [Lymantridae].  
— *carneotincta*. Swinhoe. 654.  
— *crenulata*. Swinhoe. 654.  
— *flavala*. Swinhoe. 654.  
— *ostra*. Swinhoe. 654.  
— *tritonea*. Swinhoe. 654.  
— *unisigna*. Swinhoe. 654.
- ANTHENA** [Notodontidae].  
— *consanguinea*. Distant. 118.
- ANTHERAEA** [Saturniidae].  
— *jana*; *fusca* n. subsp. Roth-  
schild. 539.  
— *platessa* n. subsp.  
Rothschild. 539.
- ANTICLEA** [Geometridae].  
— *subcaesia*. Warren. 702.
- ANTIOYRA** [Notodontidae].  
— *rufovittata*. Aurivillius. 8.
- ANTINEPHELE** [Sphingidae].  
— *lunulata*. Rothschild and  
Jordan. 539A.
- ANYTUS** [Noctuidae].  
— *tenuilinea*. Smith. 625.

- APATELODES** [Eupterotidae].  
 — *fastidiosa*. Dognin. 121.
- APHNAEUS** [Lycaenidae].  
 — *brahami*. Lathy. 378.
- APLOCHLORA** [Geometridae].  
 — *fallax*. Warren. 700.
- APODEMIA** [Erycinidae].  
 — *ochracea*. Mengel. 415.
- APODIA** [Tineidae].  
 — *asterisci*. Walsingham. 694.  
 — *scholastica*. Walsingham. 694.  
 — *seminivora*. Walsingham. 694.
- Apoprogones** n. gen. [Castniidae].  
 — Hampson. 297.  
 — *hesperistis*. Hampson. 297.
- APROAEREMA** [Tineidae].  
 — *kearfottella*. Busck. 63.
- ARCHEMIS** [Pyralidae].  
 — *argocephala*. Lower. 399.
- ARCHIPS** [Tortricidae].  
 — *granadanus*. Walsingham. 694.
- ARCTIA** [Arctiidae].  
 — *maculosa* var. *stertzi* n. var. Schulz. 580.
- Aretypa** n. gen. [Noctuidae]. Smith. 621.
- ARGYRESTHIA** [Tineidae].  
 — *prenjella*. Rebel. 504.
- ARGYROEIDES** [Syntomidae].  
 — *lydia*. Druce. 128.
- ARGYROLEPIDIA** [Agaristidae].  
 — *aurea*. Jordan. 346.  
 — *unimacula*. Lower. 399.
- ARHOPATA** [Lycaenidae].  
 — *admeta* var. *icaigeoensis* n. var. Bethune-Baker. 35.  
 — *barami*. Bethune-Baker. 35.  
 — *brookei*. Bethune-Baker. 35.  
 — *buddha*. Bethune-Baker. 35.  
 — *catori*. Bethune-Baker. 35.  
 — *chamaeleona*. Bethune-Baker. 37.  
 — *dohertyi*. Bethune-Baker. 35.  
 — *heutisoni*. Bethune-Baker. 35.  
 — *irregularis*. Bethune-Baker. 35.  
 — *kirivini*. Bethune-Baker. 35.  
 — *malayana*. Bethune-Baker. 37.
- ARHOPATA** [Lycaenidae].  
 — *malayica*. Bethune-Baker. 35.  
 — *mindanensis*. Bethune-Baker. 35.  
 — *nicotillei*. Bethune-Baker. 35.  
 — *sceta*. Bethune-Baker. 35.
- ARICHALCA** [Zygaenidae].  
 — *elegans*. Weymer. 713.
- ARICORIS** [Erycinidae].  
 — ? *helice*. Godman. 280.  
 — *hippocrate*. Godman. 280.  
 — *maia*. Godman. 280.  
 — *phaedon*. Godman. 280.  
 — ? *terias*. Godman. 280.
- ARISTEIS** [Tineidae].  
 — *macrotricha*. Lower. 401.
- ARISTOTELIA** [Tineidae].  
 — *argentifera*. Busck. 63.  
 — *bifasciella*. Busck. 63.  
 — *cockerella*. Busck. 63.  
 — *kearfottella*. Busck. 63.  
 — *quinquepunctella*. Busck. 63.
- AROA** [Lymantridae].  
 — *mirma*. Swinhoe. 654.  
 — *risoria*. Swinhoe. 654.
- AROTROPHORA** [Tortricidae].  
 — *cosmoplaca*. Lower. 401.
- ARYCANDA** [Geometridae].  
 — *alternata*. Warren. 702.  
 — *concussa*. Warren. 702.  
 — *fasciata*. Warren. 702.  
 — *fritillaria*. Warren. 702.  
 — *fritillaria*: *interfusa* n. ab. Warren. 702.
- ASARTA** [Pyralidae].  
 — *nigrella*. Hampson. 298.
- ASOTA** [Hypsidae].  
 — *anava*. Swinhoe. 657.  
 — *donatana*. Swinhoe. 655.  
 — *spadix*. Swinhoe. 655.
- ASPIATES** [Geometridae].  
 — *albaria*. Bartel. 25.
- ASTEROPE** [Nymphalidae].  
 — *ansorgei*. Rothschild and Jordan. 543.  
 — *boisdurati*: *kaffana* n. subsp. Rothschild and Jordan. 543.  
 — *consors*. Rothschild and Jordan. 543.  
 — *occidentium*: *penricei*. Rothschild and Jordan. 543.

- Astheniodes** n. gen. [Geometridae].  
Hampson. 302.  
——— *argentiplumbea*. Hampson.  
302.  
——— *polycymaria*. Hampson.  
302.
- ASURA** [Arctiidae].  
——— *acteola*. Swinhoe. 655.  
——— *orsora*. Swinhoe. 655.  
——— *undulata*. Swinhoe. 655.
- Asyngria** n. gen. [Epiplemidæ]. Dognin.  
121.  
——— *nigripuncta*. Dognin. 121.
- ATE** [Hesperiidae].  
——— *aequatorica*. Mabille. 406.
- ATELLA** [Nymphalidae].  
——— *ceylonica*. Manders. 411.  
——— *columbina*: *micrope* n. subsp.  
Rothschild and Jordan.  
543.  
——— *phalantha*: *aethiopica* n.  
subsp. Rothschild and  
Jordan. 543.  
——— ——— *granti* n. subsp.  
Rothschild and Jordan.  
543.
- Atemnora** n. gen. [Sphingidae]. Roth-  
schild and Jordan. 539A.
- ATERICA** [Nymphalidae].  
——— *galena*: *incisa* n. subsp.  
Rothschild and Jordan.  
543.
- ATHYMA** [Nymphalidae].  
——— *perius*: *perinus* n. subsp.  
Fruhstorfer. 197.
- ATTACUS** [Saturniidae].  
——— *tucumani*. Dognin. 121.
- ATTEVA** [Tineidae].  
——— *charopsis*. Turner. 678.  
——— *ruphocosma*. Turner. 678.
- ATYCHIA** [Tineidae].  
——— *caradjae*. Rebel. 500.
- ATYCHIA** [Tortricidae].  
——— *episcota*. Lower. 399.  
——— *mesochrysa*. Lower. 399.
- AULACODES** [Pyralidae].  
——— *triplaga*. Lower. 399.
- AUTOMOLIS** [Arctiidae].  
——— *coacta*. Dognin. 121.  
——— *iragorri*. Dognin. 121.  
——— *pseudelissa*. Dognin. 121.  
——— *troias*. Druce. 128.
- Autoneda** n. nom. [Tineidae]. Busck. 63.
- AVITTA** [Noctuidae].  
——— *alternans*. Warren. 699.  
——— *cupienda*. Swinhoe. 655.  
——— *currhoa*. Lower. 399.
- AXIO CERSES** [Lycaenidae].  
——— *argento-maculata*. Pagen-  
stecher. 328.  
——— *baumi*. Weyermer. 715.
- Asania** n. subgen. [Nymphalidae].  
Martin. 414.
- BAEOTIS** [Erycinidae].  
——— *bifasciata*. Mengel. 415.
- BALTIA** [Pieridae].  
——— *sikkima*. Fruhstorfer. 215.
- BAORIS** [Hesperiidae].  
——— *ogrugana*. Iathy. 378.
- BAPTA** [Geometridae].  
——— *pulverulenta*. Dognin. 121.
- BASCERA** [Notodontidae].  
——— *amydra*. Turner. 678.
- Batocnema** n. gen. [Sphingidae]. Roth-  
schild and Jordan. 539A.  
——— *coquereli*: *comorana* n.  
subsp. Rothschild and  
Jordan. 539A.
- BATRACHEDRA** [Tineidae].  
——— *stegodyphobius*. Walsing-  
ham. 693.
- Bellia** n. gen. [Sphingidae]. Tutt. 681.
- BELENOIS** [Pieridae].  
——— *teutonia*: *anita* n. subsp.  
Fruhstorfer. 197.
- Berutana** n. gen. [Sphingidae]. Roth-  
schild and Jordan. 539A.
- Blablaides** n. gen. [Pyralidae]. Hampson.  
302.  
——— *strigerella*. Hampson. 302.
- BLEPTINA** [Noctuidae].  
——— *odontias*. Lower. 399.
- BOARMIA** [Geometridae].  
——— *liopilaria*. Swinhoe. 657.  
——— *marcentaria*. Püngeler. 494.  
——— *xylorema*. Lower. 399.
- Bocchoris** [Pyralidae].  
——— *amandalis*. Swinhoe. 655.
- Bolla** n. gen. [Hesperiidae]. Mabille.  
406.
- BOMLOCHA** [Noctuidae].  
——— *atomaria*. Smith. 621.
- BONATEA** [Geometridae].  
——— *undilinea*. Dognin. 121.

- BORDETA** [Geometridae].  
 — *floridata*. Warren. 700.  
 — *fureata*. Rothschild and Jordan. 541.
- BORKHAUSENIA** [Tineidae].  
 — *calloptis*. Lower. 401.  
 — *haasi*. Rebel. 500.  
 — *iagathella*. Walsingham. 694.  
 — *kokujevi*. Krulikovskij. 366.
- BOSTRA** [Pyralidae].  
 — *cervinalis*. Rebel. 500.
- BRACHARTONA** [Zygaenidae].  
 — *lucassoni*. Piepers and Snellen. 471.  
 — *quadrisignata*. Piepers and Snellen. 471.  
 — *sythoffi*. Piepers and Snellen. 471.  
 — *trisignata*. Piepers and Snellen. 471.
- BRACHYGLENE** [Geometridae].  
 — *divisa*. Dognin. 121.
- BRACKENRIDGIA** n. gen. [Tineidae]. Busck. 64.
- BRIXIA** [Thyrididae].  
 — *particolor*. Warren. 700.
- BRYOPHILA** [Noctuidae].  
 — *ceratopyga*. Püngeler. 494.
- BUNAEA** [Saturniidae].  
 — *patruelis*. Distant. 118.  
 — *redlichi*. Weymer. 715.
- BURGENA** [Agaristidae].  
 — *reducta*. Rothschild and Jordan. 541.
- CACOGAMIA** n. gen. [Tineidae]. Snellen. 632.  
 — *elegans*. Snellen. 632.  
 — *luteella*. Snellen. 632.
- CAECULIA** [Lasiocampidae].  
 — *trilinea*. Dognin. 121.
- CAENODOMUS** [Pyralidae].  
 — *fumosalis*. Hampson. 302.
- CAEROIS** [Nymphalidae].  
 — *tespertilio*. Thieme. 660.
- CAESYRA** [Tineidae].  
 — *maculopa*. Lower. 401.
- CALAMACHROUS** [Pyralidae].  
 — *sterrhalis*. Hampson. 302.
- CALAMODES** [Geometridae].  
 — *lignaria*. Warren. 701.
- CALESIA** [Noctuidae].  
 — *vinolia*. Swinhoe. 655.
- CALIGO** [Nymphalidae].  
 — *bellerophon*. Stichel. 647.  
 — *eurilochus*: *sulanus* n. subsp. Roeber. 532.  
 — *idomeneus*: *idomenides* n. subsp. Fruhstorfer. 222.  
 — *illioneus*: *pampeiro* n. subsp. Roeber. 532.  
 — *oedipus*. Stichel. 647.  
 — *oileus*: *philinos* n. subsp. Fruhstorfer. 222.  
 — *memnon*: *menus* n. subsp. Fruhstorfer. 222.  
 — *teucer*: *obidonus* n. subsp. Roeber. 532.
- Callambulyx** n. gen. [Sphingidae]. Rothschild and Jordan. 539a.  
 — *rubricosa*: *amanda* n. subsp. Rothschild and Jordan. 539a.
- CALLETAERA** [Geometridae].  
 — *ansorgei*. Warren. 701.
- Calenulype** n. gen. [Geometridae]. Warren. 700.
- CALLIDOTA** [Arctiidae].  
 — *albiceps*. Dognin. 121.  
 — *zella*. Dyar. 151.
- CALLIPOEA** [Nymphalidae].  
 — *adyte*: *naturensis* n. subsp. Fruhstorfer. 202.
- CALLITHEA** [Nymphalidae].  
 — *adamsi*. Lathy. 380.  
 — *lugens*. Druce. 129.
- CALLOLERIA** [Nymphalidae].  
 — *radiosa*. Haensch. 294.
- CALLYNA** [Noctuidae].  
 — *leuconota*. Lower. 399.
- CALOPHAGA** [Pieridae].  
 — *melania*: *athena* n. subsp. Fruhstorfer. 229.  
 — *emilia* n. subsp. Fruhstorfer. 229.
- CALOSPILA** [Geometridae].  
 — (?) *sideruta*. Dognin. 121.
- CALYPTOCOME** [Geometridae].  
 — *incarnata*. Dognin. 121.
- CAMPIMOPTILUM** [Saturniidae].  
 — *ochraceum*. Aurivillius. 8.
- CAMPTOPLEURA** [Hesperiidae].  
 — *cataphanes*. Mabille. 406.
- CAPASA** [Geometridae].  
 — *bifurcata*. Warren. 702.

- CAPNODUS** [Noctuidae].  
 — *albisigillata*. Warren. 699.  
 — *badia*. Swinhoe. 657.  
 — *finipalpis*: *trimaculata*  
   n. subsp. Warren. 699.  
 — *niphomaculi*. Lower. 399.
- CAPTOSILIA** [Pieridae].  
 — *scylla*: *bangkejana* n. subsp.  
   Fruhstorfer. 239.
- CARADRINA** [Noctuidae].  
 — *acallis*. Turner. 677.  
 — (?) *lophota*. Lower. 399.  
 — *poliocrossa*. Turner. 677.  
 — (?) *pudica*. Lower. 399.  
 — *wulschlegeli*. Püngeler.  
   495.
- CAREA** [Noctuidae].  
 — *plagioscia*. Turner. 677.  
 — *robinsoni*. Swinhoe. 657.
- CARIA** [Erycinidae].  
 — *marsyas*. Godman. 280.  
 — *smaragdina*. Godman. 280.
- CARNEADES** [Noctuidae].  
 — *focinus*. Smith. 624.  
 — *masculus*. Smith. 624.  
 — *rumatana*. Smith. 621.
- CARPELLA** [Geometridae].  
 — *marginata*. Dognin. 121.
- CASBIA** [Geometridae].  
 — *albinotata*. Warren. 702.  
 — *profusa* n. ab.  
   Warren. 702.
- CASCERA** [Notodontidae].  
 — *amydra*. Turner. 678.
- Catarbela** n. gen. [Arbelidae]. Aurivillius. 8.  
 — *strigosa*. Aurivillius. 8.
- CATOCALA** [Noctuidae].  
 — *aholibah* var. *coloradensis*  
   n. var. Beutenmüller. 40.  
 — *amica* var. *suffusa* n. var.  
   Beutenmüller. 40.  
 — *edwardsi* n. nom. Kuznecov.  
   371.  
 — *mesopotamica* n. nom.  
   Kuznecov. 371.  
 — *orba*. Kuznecov. 372.  
 — *relicta* var. *clara* n. var.  
   Beutenmüller. 40.  
 — *unijuga* var. *fletcheri* n. var.  
   Beutenmüller. 40.
- CATORIA** [Geometridae].  
 — *canidentata*. Dognin. 121.
- Ceechenena** n. gen. [Sphingidae]. Rothschild and Jordan. 539A.  
 — *helops*: *papuana* n. subsp.  
   Rothschild and Jordan.  
   539A.
- CELAENA** [Noctuidae].  
 — *calcirena*. Püngeler. 494.
- CELAMA** [Arctiidae].  
 — *fovifera*. Hampson. 299.  
 — *omphalota*. Hampson. 299.
- CELERENA** [Geometridae].  
 — *hirtipes*. Warren. 702.  
 — *nigriceps*. Warren. 702.  
 — *siamica*. Swinhoe. 655.
- CELERIO** [Sphingidae].  
 — *euphorbiae*: *conspicua* n.  
   subsp. Rothschild and  
   Jordan. 539A.  
 — *nerrosa* n. subsp.  
   Rothschild and Jordan.  
   539A.
- CEMIOSTOMA** [Tineidae].  
 — *aceris*. Fuchs. 244.
- Centroctena** n. gen. [Sphingidae]. Rothschild and Jordan. 539A.
- CEPHONODES** [Sphingidae].  
 — *armatus*. Rothschild and  
   Jordan. 539A.  
 — *mariana* n. subsp.  
   Rothschild and Jordan.  
   539A.  
 — *janus*: *austrosundanus* n.  
   subsp. Rothschild and  
   Jordan. 539A.  
 — *leucogaster*. Rothschild and  
   Jordan. 539A.  
 — *woodfordi*: *luisae* n. subsp.  
   Rothschild and Jordan.  
   539A.  
 — *xanthus*. Rothschild and  
   Jordan. 539A.
- CERACE** [Tortricidae].  
 — *triphaenella*. Snellen. 632.
- CERATINIA** [Nymphalidae].  
 — *moebiusi*. Haensch. 294.  
 — *napona*. Haensch. 294.  
 — *tenna*. Haensch. 294.
- CERATOPHORA** [Tineidae].  
 — *phoxopterella*. Snellen. 632.
- Ceridia** n. gen. [Sphingidae]. Rothschild and Jordan. 539A.  
 — *mira*. Rothschild and  
   Jordan. 539A.

- CERMA** [Noctuidae].  
 — *fascia*. Smith. 625.
- CEROSTOMA** [Tineidae].  
 — *angelicella*. Busck. 65.  
 — *arizonella*. Busck. 65.  
 — *barberella*. Busck. 65.  
 — *manella*. Busck. 65.  
 — *oliviella*. Busck. 65.  
 — *schwarzella*. Busck. 65.  
 — *striatella*. Busck. 65.  
 — *unipunctella*. Busck. 65.
- CERTNEA** [Noctuidae].  
 — *decorata*. Swinhoe. 655.
- CETHOSIA** [Nymphalidae].  
 — *cydippe*: *iphigenia* n. subsp. Fruhstorfer. 201.  
 — *obiana* n. subsp. Fruhstorfer. 221.  
 — *woodlarkiana* n. subsp. Fruhstorfer. 202.
- Chaerocina** n. gen. [Sphingidae]. Rothschild and Jordan. 539A.
- CHALIA** [Psychidae].  
 — *künckelii*. Heylaerts. 316.
- CHAMAELIMNAS** [Erycinidae].  
 — *pansa*. Godman. 280.
- CHARAXES** [Nymphalidae].  
 — *acuminatus*. Thurnau. 668.  
 — *boueti*: *rectans* n. subsp. Rothschild and Jordan. 543.  
 — *castor*: *comoranus* n. subsp. Rothschild. 539.  
 — *harmodius*: *infernus* n. subsp. Rothschild. 539.  
 — *orilus*: *kinsericus* n. subsp. Fruhstorfer. 197.  
 — *tiridates*: *marginatus* n. subsp. Rothschild and Jordan. 543.
- Charidia** n. gen. [Hesperidae]. Mabille. 406.
- CHARIS** [Erycinidae].  
 — *arcuata*. Godman. 280.
- CHARLTONA** [Pyralidae].  
 — *fusca*. Hampson. 302.
- CHESIAODODES** [Geometridae].  
 — *bidisata*. Dyar. 149.
- CHILENA** [Lasiocampidae].  
 — *marshalli*. Aurivillius. 8.
- CHILO** [Pyralidae].  
 — *bozanus*. Hering. 311.
- CHIONAEMA** [Arctiidae].  
 — *amelaena*. Hampson. 299.  
 — *capensis*. Hampson. 299.  
 — *flavieincta*. Hampson. 299.  
 — *selangorica*. Hampson. 299.  
 — *yunnanensis*. Hampson. 299.
- CHLAENOGRAMMA** [Sphingidae].  
 — *undata*. Rothschild and Jordan. 539A.  
 — *cinerea* n. subsp. Rothschild and Jordan. 539A.
- CHLORIDEA** [Noctuidae].  
 — *chilensis*. Hampson. 300.  
 — *metachrisea*. Hampson. 300.
- CHLOROCHROMA** [Geometridae].  
 — *gigas*. Warren. 702.  
 — *minor* n. ab. Warren. 702.  
 — *indistincta*. Warren. 702.  
 — *marginipunctata*. Warren. 702.  
 — *minutipuncta*. Warren. 702.  
 — *polluta*. Warren. 702.  
 — *punctulata*. Warren. 702.
- Chlorocleptria** n. gen. [Noctuidae]. Hampson. 300.
- CHLOROCLYSTA** [Geometridae].  
 — *fulminea*. Dognin. 121.
- CHLOROCYSTIS** [Geometridae].  
 — *pallidivirens*. Warren. 702.  
 — *rectaria*. Hampson. 302.  
 — *semirasata*. Warren. 702.
- CHOASPES** [Hesperidae].  
 — *hemizanthus*. Rothschild and Jordan. 541.  
 — *illuensis*: *ornatus* n. subsp. Rothschild and Jordan. 541.
- CHONDROSTEGA** [Lasiocampidae].  
 — *aurivillii*. Püngeler. 493.
- CHOEBUTIS** [Tineidae].  
 — *myllerana* var. *holotoxa* n. var. Meyrick. 421.
- CHRYSAUGE** [Pyralidae].  
 — *citrina*. Druce. 128.  
 — *eutela*. Druce. 128.
- CHRYSOCHLOROMA** [Geometridae].  
 — *ornatimembra*. Warren. 700.

- CHRYSOCRASPEDA** [Geometridae].  
 — *croceicincta*. Hampson. 302.  
 — *lilacina*. Warren. 702.  
 — *rothschildi*. Warren. 702.  
 — *rubricata*. Swinhoe. 657.  
 — *rubrifuscaria*. Hampson. 302.
- CHRYSOLENE** [Geometridae].  
 — *aurora*. Warren. 702.
- CHrysomesia** n. gen. [Arctiidae]. Hampson. 299.  
 — *barbicostata*. Hampson. 299.
- CHRYSOPOLOMA** [Chrysopolomidae].  
 — *flaviceps*. Aurivillius. 8.
- CHRYSORICTIS** [Tineidae].  
 — *heminephela*. Lower. 401.  
 — *hemisema*. Lower. 401.
- CHURIA** [Noctuidae].  
 — *thermodes*. Lower. 399.
- CHYTONIX** [Noctuidae].  
 — *laticlava*. Smith. 625.  
 — *parvimaacula*. Smith. 625.
- CIDARIA** [Geometridae].  
 — *luteola*. Dognin. 121.
- CIREHOCHRISTA** [Pyrilidae].  
 — *cyclophora*. Lower. 399.  
 — *grabczowskyi*. Hering. 311.
- CIRRURA** n. gen. [Uraniidae]. Warren. 702.  
 — *cometifera*. Warren. 702.
- CIRSODES** [Geometridae].  
 — *meridaria*. Dognin. 121.
- CLADOCEROTIS** n. gen. [Noctuidae]. Hampson. 300.
- CLANIDOPSIS** n. gen. [Sphingidae]. Rothschild and Jordan. 539A.
- CLANIS** [Sphingidae].  
 — *euroa*. Rothschild and Jordan. 539A.  
 — *titan*. Rothschild and Jordan. 539A.
- CLARINA** n. gen. [Sphingidae]. Tutt. 682.
- CLEDEOBIA** [Pyrilidae].  
 — *syriaca*. Rebel. 501.
- CLEMENSIA** [Arctiidae].  
 — *urucata*. Dognin. 121.
- CLEROCKIA** [Arctiidae].  
 — *fulvia*: *trigona* n. subsp. Rothschild and Jordan. 539.
- CLUPEOSOMA** [Pyrilidae].  
 — (?) *mimetica*. Lower. 399.
- CNEMODES** [Geometridae].  
 — *rubripuncta*. Dognin. 121.
- CORALOPSIS** [Hesperiidae].  
 — *dupecca*. Weeks. 708.
- COBANILLA** [Lymantridae].  
 — *plumbacea*. Swinhoe. 657.
- COCCEIUS** [Hesperiidae].  
 — *syloson*. Mabille. 406.
- COCYTUS** [Sphingidae].  
 — *lucifer*. Rothschild and Jordan. 539A.
- COELITES** [Nymphalidae].  
 — *nothis*: *stylarum* n. subsp. Fruhstorfer. 199.
- COELONIA** n. gen. [Sphingidae]. Rothschild and Jordan. 539A.
- COENOCALPE** [Geometridae].  
 — *marmorata*. Dognin. 121.
- COENOTES** n. gen. [Sphingidae]. Rothschild and Jordan. 539A.
- COENOTOCA** n. gen. [Noctuidae]. Turner. 677.  
 — *monophyes*. Turner. 677.
- COLEOPHORA** [Tineidae].  
 — *angustiorella*. Fuchs. 243.  
 — *debilella*. Fuchs. 243.  
 — *implicitella*. Fuchs. 243.  
 — *longipalpella*. Fuchs. 243.  
 — *metallicella*. Fuchs. 243.
- COLIAS** [Pieridae].  
 — *eogene*: *miranda* n. subsp. Fruhstorfer. 220.  
 — *palaeno*: *asias* n. subsp. Fruhstorfer. 215.  
 — *phicomone*: *phila* n. subsp. Fruhstorfer. 215.
- COLLIX** [Geometridae].  
 — *icteraria*. Swinhoe. 657.
- COMPSOGENA** n. gen. [Sphingidae]. Rothschild and Jordan. 539A.
- CONACONTIA** [Noctuidae].  
 — *huachuca*. Smith. 621.  
 — *orba*. Smith. 621.
- CONCHYLIS** [Tortricidae].  
 — *suatcolana*. Fuchs. 243.
- CONSERVULA** [Noctuidae].  
 — *furva*. Schaus. 557.
- COPROPTILLA** n. gen. [Tineidae]. Snellen. 632.  
 — *glebicolorella*. Snellen. 632.

- CORGATHA** [Noctuidae].  
 — *pusilla*. Swinhoe. 655.  
**CORMA** [Notodontidae].  
 — *mirifica*. Swinhoe. 655.  
**CORULA** [Noctuidae].  
 — *hypotherma*. Lower. 399.  
 — *ischnodes*. Turner. 677.  
 — (?) *mesoleuca*. Lower. 399.  
**COSMIA** [Noctuidae].  
 — *venosa*. Smith. 624.  
**COSMOSATYRUS** [Nymphalidae].  
 — *nilesi*. Weeks. 708.  
**COSMOSOMA** [Syntomidae].  
 — *luceos*. Dognin. 121.  
 — *plebicula*. Dognin. 121.  
**COSSUS** [Cossidae].  
 — *aries*. Püngeler. 493.  
**CRAMBUS** [Pyralidae].  
 — *phoeostrigellus*. Hampson. 302.  
 — *photoleuca*. Lower. 399.  
 — *semicanellus*. Fuchs. 244.  
 — *vachellellus*. Kearfott. 354.  
**Crastlogia** n. gen. [Geometridae].  
 — Warren. 702.  
 — *dispar*. Warren. 702.  
**CRASPEDIA** [Geometridae].  
 — *dehortata*. Dognin. 121.  
 — *naias*. Warren. 701.  
 — *polystigmata*. Hampson. 302.  
 — *pueroa*. Dognin. 121.  
 — *sencilla*. Dognin. 121.  
**CRASPEDOSIS** [Geometridae].  
 — *casta*. Warren. 702.  
 — *flavicollis*. Warren. 702.  
 — *laticlava*. Warren. 702.  
 — *nigerrimu*. Warren. 702.  
**CRASTIA** [Nymphalidae].  
 — *circuita*. Swinhoe. 655.  
 — *tonkinensis*. Swinhoe. 655.  
**CREATONOTUS** [Arctiidae].  
 — *brunnipennis*. Bartel. 26.  
 — *flavidus*. Bartel. 26.  
**CREMNA** [Erycinidae].  
 — *malis*. Godman. 280.  
**CRICOSOMA** [Erycinidae].  
 — *irroratum*. Godman. 280.  
**CRIOPHTHONA** [Pyralidae].  
 — *trileuca*. Lower. 399.  
**CROCIDOPHORA** [Pyralidae].  
 — *exstigmatis*. Hampson. 302.  
**Croniades** n. gen. [Hesperiidae]. Mabille. 406.  
**CRURIA** [Agaristidae].  
 — *hemiphragma*. Lower. 399.  
 — *placoides*. Lower. 399.  
 — *synopla*. Turner. 677.  
**Crypsicoela** n. gen. [Epiplemidæ].  
 — Dognin. 121.  
 — *subocellata*. Dognin. 121.  
**CRYPTOBLABES** [Pyralidae].  
 — *ephestialis*. Hampson. 302.  
**CRYPTOPHAGA** [Tineidae].  
 — *diplosema*. Lower. 400.  
 — *gyssomera*. Lower. 399.  
 — *melanoscia*. Lower. 400.  
**CRYPTOPHAGA** [Tineidae].  
 — *stipella*. Snellen. 107.  
**CUCULLIA** [Noctuidae].  
 — *linosyridis*. Fuchs. 251.  
**CUPHA** [Nymphalidae].  
 — *erymanthis*: *kangeana* n. subsp. Fruhstorfer. 197.  
**CYANOPEPLA** [Syntomidae].  
 — *girardi*. Dognin. 121.  
**Cyclogypha** n. gen. [Hesperiidae].  
 — Mabille. 406.  
 — *caeruleonigra*. Mabille. 406.  
**CYDALIMA** [Pyralidae].  
 — *fimbriata*. Hering. 311.  
**CYMATOPHORA** [Geometridae].  
 — *granillosa*. Dognin. 121.  
 — *regularis*. Dognin. 121.  
 — *spatiosata*. Dognin. 121.  
 — *subatrata*. Dognin. 121.  
**CYMATOPHOROPSIS** [Noctuidae].  
 — *catagrapha*. Turner. 677.  
**CYMOLAMIA** [Tortricidae].  
 — *faillana*. Fuchs. 243.  
**CYMOTHOE** [Nymphalidae].  
 — *lurida*: *sublurida*. Fruhstorfer. 219.  
**CYNTHIA** [Nymphalidae].  
 — *arsinoe*: *buruana* n. subsp. Fruhstorfer. 201.  
 — *pisidike* n. subsp. Fruhstorfer. 213.  
 — *polykaste* n. subsp. Fruhstorfer. 213.  
**CYPA** [Sphingidae].  
 — *decolor*: *curoa* n. subsp. Rothschild and Jordan. 539A.



- CYRESTIS** [Nymphalidae].  
 ————— *ceramensis*. Martin. 414.  
 ————— *cocles*: *cocleoides*. Fruhstorfer. 199.  
 ————— *excellens*. Martin. 414.  
 ————— *rothschildi*. Martin. 414.  
 ————— *ulawana*. Martin. 414.
- Daddia** n. gen. [Sphingidae]. Tutt. 681.
- DAEDALMA** [Nymphalidae].  
 ————— *bronzæ*. Weeks. 706.
- DALACA** [Hepialidae].  
 ————— *sladeni*. Heron and Hampson. 312.
- DARANTASIA** [Geometridae].  
 ————— *perichroa*. Lower. 400.
- DARANTASIA** [Arctiidae].  
 ————— *pervittata*. Hampson. 299.
- DARNA** [Geometridae].  
 ————— *conscita*. Druce. 128.
- DASYCHIRA** [Lymantridae].  
 ————— *chinensis*. Swinhoe. 654.  
 ————— *cromptoni*. Swinhoe. 654.  
 ————— *gnata* n. nom. Swinhoe. 654.  
 ————— *guelila*. Swinhoe. 654.  
 ————— *horrida*. Swinhoe. 654.  
 ————— *magnalia*. Swinhoe. 656.
- Dasydes** n. gen. [Tineidae]. Durrant. 139.
- DECLANA** [Geometridae].  
 ————— *glacialis*. Hudson. 332.
- DETOCHILUS** [Geometridae].  
 ————— *marginata*. Dognin. 121.
- DEILEMERA** [Cocytidae].  
 ————— *amosa*. Swinhoe. 653.  
 ————— *dispar*. Swinhoe. 653.  
 ————— *distincta*. Swinhoe. 653.  
 ————— *drucei*. Swinhoe. 653.  
 ————— *gerra*. Swinhoe. 653.  
 ————— *illustris*. Swinhoe. 653.  
 ————— *kaparensis*. Swinhoe. 653.  
 ————— *kinagananga*. Swinhoe. 653.  
 ————— *leuctra*. Swinhoe. 653.  
 ————— *lombokiana*. Swinhoe. 653.  
 ————— *nigrovana*. Swinhoe. 653.  
 ————— *nisa*. Swinhoe. 653.  
 ————— *oroya*. Swinhoe. 653.  
 ————— *ovada*. Swinhoe. 653.  
 ————— *popiya*. Swinhoe. 653.  
 ————— *sangira* n. nom. Swinhoe. 656.  
 ————— *semperi*. Swinhoe. 653.  
 ————— *synnia*. Swinhoe. 653.  
 ————— *uniplaga*. Swinhoe. 653.
- DEILEPHILA** [Sphingidae].  
 ————— *siehei*. Püngeler. 488.
- DENDROLIMUS** [Bombycidae].  
 ————— *laricis*. Tschetwerikoff. 676.
- Deoclona** n. gen. [Tineidae]. Busck. 63.  
 ————— *yuccasella*. Busck. 63.
- Deoris** n. gen. [Papilionidae]. Moore. 427.
- DEPRESSARIA** [Tineidae].  
 ————— *depressella* var. *prangosella* n. var. Walsingham. 694.  
 ————— *fruticoseella*. Walsingham. 694.  
 ————— *genistella*. Walsingham. 694.  
 ————— *semenovi*. Krulikowskij. 366.  
 ————— *uhrykella*. Fuchs. 244.
- DEUDORIX** [Lycaenidae].  
 ————— *caliginosa*. Lathy. 378.  
 ————— *catori*. Bethune-Baker. 36.
- DEVARA** [Arctiidae].  
 ————— *semidolens*. Druce. 128.
- DIACRISIA** [Arctiidae].  
 ————— *euryphlebia*. Hampson. 299.
- DIALEPHITIS** [Geometridae].  
 ————— *semimarginata*. Dognin. 121.
- DIAPHONE** [Arctiidae].  
 ————— *angolensis*. Weymer. 713.  
 ————— *libertina*. Bartel. 26.
- DIATHRAUSTODES** [Pyralidae].  
 ————— *similis*. Hampson. 302.
- DIATROEA** [Pyralidae].  
 ————— *aculeata*. Hampson. 302.  
 ————— *virgosa*. Hering. 310.
- Dichelura** n. gen. [Hesperidae]. Mabille. 406.
- DICHOOCROOIS** [Pyralidae].  
 ————— *leptalis*. Hampson. 302.
- DICHORRAGIA** [Nymphalidae].  
 ————— *nesimachus*: *derdas* n. subsp. Fruhstorfer. 213.  
 ————— *machates*. Fruhstorfer. 213.
- DICHROVODES** [Geometridae].  
 ————— *aristadelpa*. Lower. 400.  
 ————— *griseata*. Hudson. 332.  
 ————— *orthozona*. Lower. 400.
- Dictyosoma** n. gen. [Sphingidae]. Rothschild and Jordan. 539a.
- DIDACTYLOTA** [Tineidae].  
 ————— *althihermella*. Walsingham. 694.

- DIERNA** [Noctuidae].  
 ——— *achroa*. Lower. 390.  
**DIESTOGYNA** [Nymphalidae].  
 ——— *nigropunctata*. Aurivillius. 8.  
 ——— *umbrina*. Aurivillius. 8.  
**DIPHThERA** [Noctuidae].  
 ——— *beryllodes*. Turner. 677.  
**DIPLODOMA** [Tineidae].  
 ——— *palaestina*. Rebel. 500.  
**DIPTILON** [Syntomidae].  
 ——— *sylpha*. Dognin. 121.  
**DIRADES** [Geometridae].  
 ——— *platyphylla*. Turner. 677.  
 ——— *stereogramma*. Turner. 677.  
**DIRCENNA** [Nymphalidae].  
 ——— *loreta*. Haensch. 294.  
 ——— *suna*. Haensch. 294.  
 ——— *vandona*. Haensch. 294.  
 ——— *visina*. Haensch. 294.  
**DIRPHIA** [Eupterotidae].  
 ——— *flavoscripta*. Dognin. 121.  
 ——— *subhorea*. Dognin. 121.  
**DISCOPHLEBIA** [Notodontidae].  
 ——— *blosyrodes*. Turner. 678.  
**DISCOPHORA** [Nymphalidae].  
 ——— *bangkaiensis* n. subsp. Fruhstorfer. 228.  
 ——— *muscina*. Stichel. 643.  
**Dismenetis** n. gen. [Nymphalidae].  
 ——— Haensch. 294.  
 ——— *hermana*. Haensch. 294.  
 ——— *hevitsoni*. Haensch. 294.  
**DISSOCTENA** [Tineidae].  
 ——— *albidella*. Bang-Haas. 500.  
**Dolbinopsis** n. gen. [Sphingidae].  
 ——— Rothschild and Jordan. 539A.  
**Dolbogene** n. gen. [Sphingidae].  
 ——— Rothschild and Jordan. 539A.  
**DOLESCHALLIA** [Nymphalidae].  
 ——— *bisaltida*: *ceylonica* n. subsp. Fruhstorfer. 213.  
 ——— *mariae* n. subsp. Fruhstorfer. 213.  
 ——— *dascon*: *dasconides* n. subsp. Fruhstorfer. 238.  
 ——— *dasyclus*: *endasyclus* n. subsp. Fruhstorfer. 238.  
**DORATOPTERYX** [Zygaenidae].  
 ——— *xanthomelas*. Rothschild and Jordan. 541.  
**Dovania** n. gen. [Sphingidae]. Rothschild and Jordan. 539A.  
 ——— *poecila*. Rothschild and Jordan. 539A.  
**DYSOONEMIS** [Noctuidae].  
 ——— *borealis*. Hampson. 300.  
**DYSPHANIA** [Geometridae].  
 ——— *imperatrix*. Warren. 700.  
**EABIAS** [Arctiidae].  
 ——— *syriacana*. Bartel. 27.  
**ECCOPIDIA** [Pyrilidae].  
 ——— *vinistis*. Hampson. 302.  
**ECHEDORUS** [Limacodidae].  
 ——— *vitreus*. Dognin. 121.  
**Ecnomodes** n. gen. [Notodontidae].  
 ——— Turner. 678.  
**EOPANTHERIA** [Arctiidae].  
 ——— *theophila*. Dognin. 121.  
**Ectopatria** n. gen. [Noctuidae]. Hampson. 300.  
 ——— *paurogramma*. Hampson. 300.  
 ——— *spilomata*. Hampson. 300.  
 ——— *umbrosa*. Hampson. 300.  
**ECTROPIS** [Geometridae].  
 ——— *recticomata*. Swinhoe. 657.  
**EGNASIA** [Noctuidae].  
 ——— *francoia*. Swinhoe. 655.  
 ——— *psammochroa*. Lower. 399.  
**ELDANA** [Pyrilidae].  
 ——— *leucostictalis*. Lower. 399.  
**ELIGINA** [Noctuidae].  
 ——— *orthoxantha*. Lower. 399.  
**ELINA** [Nymphalidae].  
 ——— *calvertii*. Elwes. 164.  
**Ellenbeckia** n. gen. [Sphingidae].  
 ——— Rothschild and Jordan. 539A.  
 ——— *monospila*. Rothschild and Jordan. 539A.  
**ELPHOS** [Geometridae].  
 ——— *exalbata*. Warren. 702.  
**ELYMNIA** [Nymphalidae].  
 ——— *lais*: *apelles* n. subsp. Fruhstorfer. 208, 224.  
 ——— *nigrescens*: *formosana* n. subsp. Fruhstorfer. 211.  
 ——— *sumbana*. Fruhstorfer. 199.  
 ——— *tonkiniana* n. subsp. Fruhstorfer. 199.  
 ——— *patna*: *stictica*. Fruhstorfer. 199.

- ELYMNIA** [Nymphalidae].  
 ——— *undularis: meridionalis* n. subsp. Fruhstorfer. 224.  
 ——— *violetta* n. subsp. Fruhstorfer. 224.
- ELYSIUS** [Arctiidae].  
 ——— *insulsa*. Dognin. 121.
- EMATURGINA** n. gen. [Erycinidae]. Röber. 531.  
 ——— *mabildei*. Röber. 531.
- EMBRYOGLOSSA** [Pyrilidae].  
 ——— *bipuncta*. Hampson. 302.
- EMESIS** [Erycinidae].  
 ——— *eurydice*. Godman. 280.
- ENCONISTA** [Geometridae].  
 ——— *amoritaria*. Püngeler. 493.
- ENDEMIA** n. gen. [Geometridae]. Warren. 702.  
 ——— *tenera*. Warren. 702.
- ENDOTRICHA** [Pyrilidae].  
 ——— *albicinctalis*. Hampson. 302.  
 ——— *desinotoma*. Lower. 399.  
 ——— *medeolineata*. Hampson. 302.  
 ——— *ochrifuscalis*. Hampson. 302.  
 ——— *pyrocaustalis*. Lower. 399.
- ENPTINANGA** n. gen. [Sphingidae]. Rothschild and Jordan. 539A.
- ENTO** [Sphingidae].  
 ——— *pronos: fuscatus* n. subsp. Rothschild and Jordan. 539A.
- EOIS** [Geometridae].  
 ——— *pararussearia*. Dognin. 121.
- EPAMERA** [Lycaenidae].  
 ——— *mirabilis*. Druce. 130.
- EPARGYREUS** [Hesperiidae].  
 ——— *arsaces*. Mabille. 406.
- EPHEMEROIDEA** [Zygaenidae].  
 ——— *virescens*. Piepers and Snellen. 471.
- EPICHOPTERYX** [Psychidae].  
 ——— *pulla* var. *volkeri* n. var. Trautmann. 672.
- EPIDEMAS** [Noctuidae].  
 ——— *obscurus*. Smith. 624.
- EPIDICTICA** n. gen. [Tineidae]. Turner. 678.  
 ——— *calliphylla*. Turner. 678.  
 ——— *thiospila*. Turner. 678.
- EPIMENIA** [Tineidae].  
 ——— *cicutaella*. Kearfott. 354.  
 ——— *ramapoella*. Kearfott. 354.
- EPINOORDA** n. gen. [Pyrilidae]. Rebel. 500.  
 ——— *caradjae*. Rebel. 500.
- EPINOTIA** [Tortricidae].  
 ——— *cornutana*. Dyar. 149.  
 ——— *favillana*. Dyar. 149.
- EPIPHYTNE** [Geometridae].  
 ——— *citrinata*. Warren. 700.
- EPIPLEMA** [Epiplemidae].  
 ——— *aegillodes*. Turner. 677.  
 ——— *alabastraria*. Warren. 700.  
 ——— *brevicens*. Dognin. 121.  
 ——— *inquinata*. Warren. 702.  
 ——— *lignicolor*. Dognin. 121.  
 ——— *obliquifascia*. Dognin. 121.  
 ——— *oxytypa*. Turner. 677.  
 ——— *raripuncta*. Dognin. 121.  
 ——— *sparsipunctata*. Warren. 700.  
 ——— *stigmatalis*. Warren. 700.  
 ——— *xylinapis*. Turner. 677.
- EPIRRHOE** [Geometridae].  
 ——— *respondens*. Dognin. 121.  
 ——— *subrufaria*. Warren. 701.
- EPISCADA** [Nymphalidae].  
 ——— *praetigiosa*. Haensch. 294.
- EPISILIA** [Noctuidae].  
 ——— *diplogramma*. Hampson. 300.  
 ——— *homochroma*. Hampson. 300.  
 ——— *isochroma*. Hampson. 300.  
 ——— *monogramma*. Hampson. 300.  
 ——— *retracta*. Hampson. 300.  
 ——— *stridula*. Hampson. 300.
- EPISOTHAIMA** [Geometridae].  
 ——— *cognataria*. Swinhoe. 655.
- EPISTOR** [Sphingidae].  
 ——— *cavifer*. Rothschild and Jordan. 539A.  
 ——— *lugubris: latipennis* n. subsp. Rothschild and Jordan. 539A.  
 ——— *taedium: australis* n. subsp. Rothschild and Jordan. 539A.
- EPITHECTIS** [Tineidae].  
 ——— *sylnicolella*. Busck. 63.
- EPITOLA** [Lycaenidae].  
 ——— *albomaculata*. Bethune-Baker. 36.  
 ——— *gordoni*. Druce. 130.  
 ——— *moyambina*. Bethune-Baker. 36.  
 ——— *nigra*. Bethune-Baker. 36.

- EPITOXIS** [Syntomidae].  
 ——— *albicincta*. Hampson. 299.  
 ——— *nigra*. Hampson. 299.  
**EPopsia** n. gen. [Tineidae]. Turner. 678.  
 ——— *metreta*. Turner. 678.  
**EPUNDA** [Noctuidae].  
 ——— *bacheri*. Püngeler. 490.  
**ERASTRIA** [Noctuidae].  
 ——— *onthodes*. Lower. 399.  
**Eremocentra** n. gen. [Geometridae].  
 Warren. 702.  
**ERESSA** [Syntomidae].  
 ——— *xanthostacta*. Hampson. 299.  
**ERGOLIS** [Nymphalidae].  
 ——— *celebensis*: *dongalae* n. subsp. Fruhstorfer. 213.  
 ——— *phemonoe*. Fruhstorfer. 213.  
**ERINNYIS** [Sphingidae].  
 ——— *obscura*: *conformis* n. subsp. Rothschild and Jordan. 539A.  
**ERISTENA** [Pyrilidae].  
 ——— *straminealis*. Hampson. 302.  
**ERITES** [Nymphalidae].  
 ——— *madura*: *ines* n. subsp. Fruhstorfer. 212.  
**EROMENE** [Pyrilidae].  
 ——— *pygmaea*. Hering. 310.  
**Esthemopheles** n. gen. [Erycinidae].  
 Röber. 531.  
 ——— *lamprolenis*. Röber. 531.  
**ESTIGMENA** [Arctiidae].  
 ——— *atropunctata*. Fawcett. 173.  
**ETIELLA** [Pyrilidae].  
 ——— *grisea*. Hampson. 302.  
 ——— *holozona*. Lower. 399.  
 ——— *myosicta*. Hampson. 302.  
 ——— *uniformalis*. Hampson. 302.  
**EUCALLAENIA** [Pyrilidae].  
 ——— *ragonoti*. Hering. 311.  
**EUCALYPTA** [Noctuidae].  
 ——— *apicalis*. Smith. 621.  
 ——— *humeralis*. Smith. 621.  
 ——— *minorata*. Smith. 621.  
 ——— *nivalis*. Smith. 621.  
 ——— *stygalis*. Smith. 621.  
 ——— *umbonata*. Smith. 621.  
**EUCELIS** [Tortricidae].  
 ——— *malcolmae*. Walsingham. 694.  
**EUCEBREON** [Syntomidae].  
 ——— *papayanum*. Dognin. 121.  
**EUCHLORIS** [Geometridae].  
 ——— *dichroa*. Lower. 401.  
**EUCHROMIA** [Syntomidae].  
 ——— *vitiensis*. Hampson. 299.  
**EUCLIDIA** [Noctuidae].  
 ——— *dyari*. Smith. 621.  
**EUCOPTOCNEMIS** [Noctuidae].  
 ——— *stenistis*. Hampson. 300.  
**EUCOSMA** [Tortricidae].  
 ——— *cercocarpana*. Dyar. 151.  
 ——— (?) *edemoidana*. Dyar. 149.  
 ——— *gilletteana*. Dyar. 149.  
 ——— *optimana*. Dyar. 148.  
 ——— *pulsatillana*. Dyar. 151.  
**EUCOSMIA** [Geometridae].  
 ——— *palpata*. Dognin. 121.  
**EUCROSTES** [Geometridae].  
 ——— *cymaria*. Hampson. 302.  
 ——— *semitaria*. Püngeler. 490.  
**EUCROSTIS** [Geometridae].  
 ——— *subtusumbrata*. Fuchs. 246.  
**EUCYMATOGE** [Geometridae].  
 ——— *falsidica*. Warren. 702.  
**EUDAMUS** [Hesperiidae].  
 ——— *loxo*. Mabille. 406.  
 ——— *myrto*. Mabille. 406.  
**Eudrymopsis** n. gen. [Tineidae]. Lower. 401.  
 ——— *xyloscopa*. Lower. 401.  
**EUDULE** [Geometridae].  
 ——— *atrimorsa*. Dognin. 121.  
 ——— *semirubra*. Dognin. 121.  
**EUEIDES** [Nymphalidae].  
 ——— *aliphera*: *gracilis* n. subsp. Stichel. 642.  
 ——— *cleobaea* var. *adusta* n. var. Stichel. 642.  
 ——— *dianasa* var. *decolorata* n. var. Stichel. 642.  
 ——— *eanes* var. *aides* n. var. Stichel. 642.  
 ——— var. *eanides* n. var. Stichel. 642.  
 ——— var. *felderi* n. var. Stichel. 642.  
 ——— var. *pluto* n. var. Stichel. 642.  
 ——— var. *riffarthi* n. var. Stichel. 642.  
 ——— *edias*: *luminosus* n. subsp. Stichel. 642.

## EUEIDES [Nymphalidae].

- *edias*; *pallens* n. subsp.  
Stichel. 642.
- *vialis* n. subsp.  
Stichel. 642.
- *vicinalis* n. subsp.  
Stichel. 642.
- *isabella*; *arguata* n. subsp.  
Stichel. 642.
- var. *brunnea* n.  
var. Stichel. 642.
- *dissoluta* n. subsp.  
Stichel. 642.
- var. *margaritifera*  
n. var. Stichel. 642.
- *seitsi* n. subsp.  
Stichel. 642.
- var. *spoliata* n.  
var. Stichel. 642.
- *vegetissima* n.  
var. Stichel. 642.
- *lampeto* var. *amoena* n. var.  
Stichel. 642.
- *carbo* n. var.  
Stichel. 642.
- *fulginosa* n. var.  
Stichel. 642.
- *margaritifera* var. *personata* n. var. Stichel.  
642.
- *thales*; *heraldicus* n. subsp.  
Stichel. 642.
- *surdus* n. subsp.  
Stichel. 642.

## EUERETAGROTIS [Noctuidae].

- *inattenta*. Smith. 621.

## EUGNESIA [Geometridae].

- *decolorata*. Warren. 702.

## EUGOA [Arctiidae].

- *immunda*. Swinhoe. 655.

## EUIPPE [Geometridae].

- *inferna*. Warren. 702.

## EULEORIA [Tineidae].

- *atradelpha*. Lower. 401.

## EULEPIS [Nymphalidae].

- *hebe*; *kangeanus* n. subsp.  
Fruhstorfer. 197.
- *pyrrhus*; *babbericus* n. subsp.  
Fruhstorfer. 197.
- *pyrrhulus* n.  
subsp. Fruhstorfer. 197.
- *watubela* n. subsp.  
Rothschild. 541.

## EUNICA [Erycinidae].

- *mabildei*. Röber. 531.

## EUPANTCHIS [Noctuidae].

- *mezicana*. Hampson. 300.

## EUPHAEDRA [Nymphalidae].

- *aureofasciata*. Lathy. 378.
- *ellenbecki*. Pagenstecher.  
459.
- *losinga* var. *inaequabilis*  
n. var. Thureau. 667.
- *medon* var. *albula* n. var.  
Thureau. 667.
- *ab. fraudata* n.  
Thureau. 667.
- *nigrocilia*. Lathy. 378.

## EUPITHECIA [Geometridae].

- *eurotosoma*. Hampson. 302.
- *incurcaria*. Hampson. 302.
- *thermosaria*. Hampson.  
302.

## EUPROCTIS [Lymantridae].

- *alba*. Swinhoe. 654.
- *albescens* n. nom. Swinhoe.  
654.
- *anna*. Swinhoe. 656.
- *arelada*. Swinhoe. 654.
- *atrisignata*. Swinhoe. 654.
- *barbara*. Swinhoe. 656.
- *calva*. Swinhoe. 654.
- *catala* n. nom. Swinhoe.  
654.
- *cerasina*. Swinhoe. 654.
- *cheela*. Swinhoe. 654.
- *chirunda*. Swinhoe. 654.
- *civitta*. Swinhoe. 656.
- *commutanda* n. nom.  
Swinhoe. 654.
- *dana*. Swinhoe. 654.
- *drucei* n. nom. Swinhoe.  
654.
- *egregia*. Swinhoe. 654.
- *faceta*. Swinhoe. 654.
- *florida*. Swinhoe. 654.
- *fulvistrata*. Swinhoe. 654.
- *funeralis*. Swinhoe. 654.
- *gentia*. Swinhoe. 656.
- *hampsoni* n. nom. Swinhoe.  
654.
- *huntei*. Warren. 699.
- *idonea*. Swinhoe. 654.
- *livia*. Swinhoe. 654.
- *maza*. Swinhoe. 654.
- *meeki*. Druce. 129.
- *minutissima*. Swinhoe. 654.
- *mirabilis*. Swinhoe. 654.
- *nigribasalis*. Swinhoe. 654.
- *ornea*. Swinhoe. 654.
- *ostra*. Swinhoe. 654.
- *osuna*. Swinhoe. 654.
- *peela*. Swinhoe. 654.
- *perplexa*. Swinhoe. 654.
- *postnigra*. Swinhoe. 654.

- EUPROOTIS** [Lymantridae].  
 — *pubescens* n. nom. Swinhoe. 654.  
 — *pura*. Swinhoe. 654.  
 — *pycnadelpha*. Lower. 309.  
 — *reeraba*. Swinhoe. 656.  
 — *sezmacula*. Swinhoe. 656.  
 — *sundara*. Swinhoe. 654.  
 — *tenuis*. Swinhoe. 654.  
 — *utilis*. Swinhoe. 654.  
 — *virgo*. Swinhoe. 654.
- EUPTYCHIA** [Nymphalidae].  
 — *lutella*. Weeks. 706.
- EURIPUS** [Nymphalidae].  
 — *consimilis*: *eurinus* n. subsp. Fruhstorfer. 213.  
 — *halitherses*: *mastor* n. subsp. Fruhstorfer. 213.
- EUROSIA** [Arctiidae].  
 — *fulginea*. Hampson. 299.
- EUROTA** [Syntomidae].  
 — *tisamena*. Dognin. 121.
- EURYGLOTTIS** [Sphingidae].  
 — *aper*: *guttiventris* n. subsp. Rothschild and Jordan. 539a.
- EURYGONA** [Erycinidae].  
 — *anthe*. Godman. 280.  
 — *fabia*. Godman. 280.  
 — *licinia*. Godman. 280.  
 — *rhodogyne*. Godman. 280.
- EURYPHENE** [Nymphalidae].  
 — *ikelemba*. Aurivillius. 8.
- EURYPTERYX** [Sphingidae].  
 — *bhaga*: *obtruncata* n. subsp. Rothschild and Jordan. 539a.  
 — *shelfordi*. Rothschild and Jordan. 539a.
- EURYTELA** [Nymphalidae].  
 — *hiarbas*: *abyssinica*. Rothschild and Jordan. 543.  
 — *lita* n. subsp. Rothschild and Jordan. 543.
- EURYTHECODES** [Geometridae].  
 — *mutabilis*. Warren. 701.  
 — *immaculata* n. ab. Warren. 701.  
 — *pallida* n. ab. Warren. 701.  
 — *punctata* n. ab. Warren. 701.
- EUSARCA** [Geometridae].  
 — *maculifascia*. Dognin. 121.
- EUSYNOPA** n. gen. [Tineidae]. Lower. 401.
- EUSYSSAURA** n. gen. [Ceratocampidae]. Packard. 457.
- EUTHINANOTIA** [Noctuidae].  
 — *semiviridis*. Druce. 128.
- EUXANTHE** [Nymphalidae].  
 — *ansorgei*. Rothschild and Jordan. 540.
- EUXOA** [Noctuidae].  
 — *araucaria*. Hampson. 300.  
 — *azilioides*. Hampson. 300.  
 — *coquimbensis*. Hampson. 300.  
 — *cursorioides*. Hampson. 300.  
 — *epipyria*. Hampson. 300.  
 — *falcandica*. Hampson. 300.  
 — *hemispherica*. Hampson. 300.  
 — *longidentifera*. Hampson. 300.  
 — *nesileus*. Smith. 625.  
 — *nyctina*. Hampson. 300.  
 — *nyctopis*. Hampson. 300.  
 — *pallidifrons*. Hampson. 300.  
 — *peperida*. Hampson. 300.  
 — *poliotis*. Hampson. 300.  
 — *proleuca*. Hampson. 300.  
 — *pronycta*. Hampson. 300.  
 — *ruficeps*. Hampson. 300.  
 — *rufomixta*. Hampson. 300.  
 — *subspinifera*. Hampson. 300.  
 — *vigurasa*. Hampson. 300.  
 — *xanthiodes*. Hampson. 300.
- EUZOPHERA** [Pyralidae].  
 — *albicostalis*. Hampson. 302.  
 — *cedrella*. Hampson. 302.
- EUZOPHERODES** [Pyralidae].  
 — *allocroassa*. Lower. 399.  
 — *ephestialis*. Hampson. 302.  
 — *irroralis*. Hampson. 302.
- EVERGESTIS** [Pyralidae].  
 — *flavifuscalis*. Rebel. 501.  
 — *tenuiscriptalis*. Rebel. 501.
- EVETRIA** [Tortricidae].  
 — *neomexicana*. Dyar. 150.
- FELTIA** [Noctuidae].  
 — *canities*. Hampson. 300.  
 — *duo-signa*. Hampson. 300.
- FISHIA** [Noctuidae].  
 — *exhilarata*. Smith. 621.  
 — *vinela*. Smith. 625.
- FLAVINIA** [Cyllopodidae].  
 — *superba*. Druce. 128.

- Florina** n. gen. [Sphingidae]. Tutt. 682.
- FODINA** [Noctuidae].  
 — *chrysomera*. Lower. 391.
- GADIPTERA** [Noctuidae].  
 — *hades*. Lower. 399.
- GALECHIA** [Geometridae].  
 — *norvegica*. Strand. 650.
- GALLARA** [Notodontidae].  
 — *ochropepla*. Turner. 678.
- GARGETTA** [Notodontidae].  
 — *acarodes*. Turner. 678.
- GASTEROCOME** [Geometridae].  
 — *subdivisa*. Warren. 702.
- Gastrinopa** n. gen. [Geometridae].  
 Lower. 400.  
 — *zylistis*. Lower. 400.
- GASTROPLAKOIS** [Lasiocampidae].  
 — *meridionalis*. Aurivillius. 8.
- GELECHIA** [Tineidae].  
 — *abdominella*. Busck. 63.  
 — *abella*. Busck. 63.  
 — *aristella*. Busck. 63.  
 — *arizonella*. Busck. 63.  
 — *barnesiella*. Busck. 63.  
 — *cockerelli*. Busck. 63.  
 — *coloradensis*. Busck. 63.  
 — *dentella*. Busck. 63.  
 — *dyariella*. Busck. 63.  
 — *hibiscella*. Busck. 63.  
 — *lindenella*. Busck. 63.  
 — *nigrimaculella*. Busck. 63.  
 — *nordlandicoella*. Strand. 651.  
 — *norvegia*. Strand. 650.  
 — *panella*. Busck. 63.  
 — *pauella*. Busck. 63.  
 — *serotinella*. Busck. 63.  
 — *similella*. Snellen. 632.  
 — *sistrella*. Busck. 63.  
 — *striatella*. Busck. 63.  
 — *trophella*. Busck. 63.  
 — *unifasciella*. Busck. 63.  
 — *variabilis*. Busck. 63.
- GEOMETRA** [Geometridae].  
 — *rufifrontaria*. Hampson. 302.
- Gerotis** n. gen. [Hesperiidae]. Mabilie. 406.
- GLYPHODES** [Pyralidae].  
 — *praeifulgida*. Hering. 311.
- GNOPHOS** [Geometridae].  
 — *difficilis* var. *korlata* n. var. Fuchs. 249.  
 — *pantheri*. Rebel. 504.  
 — *praestigaria*. Püngeler. 494.
- GNORIMOSCHEMA** [Tineidae].  
 — *artemisiella*. Kearfott. 354.  
 — *baccharisella*. Busck. 63.  
 — *banksiella*. Busck. 63.  
 — *batanella*. Busck. 63.  
 — *busekiella*. Kearfott. 354.  
 — *dudiella*. Busck. 63.  
 — *florella*. Busck. 63.  
 — *semicyclionella*. Busck. 63.  
 — *tetradymiella*. Busck. 63.
- GONANTICLEA** [Geometridae].  
 — *sublustris*. Warren. 702.
- Goniopalpis** n. gen. [Pyralidae]. Hampson. 302.  
 — *delicatula*. Hampson. 302.
- GONOPHAGA** [Geometridae].  
 — *straminea*. Warren. 702.  
 — *abrupta* n. ab. Warren. 702.  
 — *brunneata* n. ab. Warren. 702.  
 — *subgriseata*. Warren. 702.  
 — *subpulchra*: *innotata* n. ab. Warren. 702.  
 — *nigromaculata* n. ab. Warren. 702..
- GRACILARIA** [Tineidae].  
 — *strassenella*. Enderlein. 165.
- GRAMMODES** [Noctuidae].  
 — *callizeris*. Lower. 399.
- Grammodia** n. gen. [Sphingidae]. Rothschild and Jordan. 539a.
- Granila** n. gen. [Hesperiidae]. Mabilie. 406.
- Greya** n. gen. [Tineidae]. Busck. 64.
- GUESTIA** [Tineidae].  
 — *amydrosema*. Lower. 401.  
 — *ischnota*. Lower. 401.
- Gullaca** n. gen. [Geometridae]. Warren. 700.  
 — *festivata*. Warren. 700.
- GYMNOSCELIS** [Geometridae].  
 — *festiva*. Warren. 702.
- HADENA** [Noctuidae].  
 — *alberta*. Smith. 624.  
 — *albiserata*. Smith. 624.  
 — *dolia*. Püngeler. 494.  
 — *exhausta*. Smith. 621.  
 — *parcata*. Smith. 624.
- HAEMORRHAGIA** [Sphingidae].  
 — *staudingeri*: *ottonis* n. subsp. Rothschild and Jordan. 539a.

- HAEMORRHAGIA** [Sphingidae].  
 ——— *tityus*: *alaina* n. subsp.  
 Rothschild and Jordan.  
 539A.
- HALTEROPHORA** [Geometridae].  
 ——— *thalassias*. Warren. 700.
- HAMMAPTERA** [Geometridae].  
 ——— *trochilarioides*. Dognin.  
 121.
- HAMODES** [Noctuidae].  
 ——— *pseudoptera*. Lower. 399.
- Haplozana** n. gen. [Notodontidae].  
 Aurivillius. 8.  
 ——— *nigrolineata*. Aurivillius. 8.
- HARPELLA** [Tineidae].  
 ——— *aureatella*. Snellen. 632.
- HEBOMOIA** [Pieridae].  
 ——— *glaucippe*: *aurantiaca*  
 n. subsp. Fruhstorfer.  
 221.
- Hedycharis** n. gen. [Tineidae]. Turner.  
 678.  
 ——— *phoenobapta*. Turner. 678.
- HELOYRA** [Nymphalidae].  
 ——— *hemina*: *masiniu* n. subsp.  
 Fruhstorfer. 213.
- HELICONIUS** [Nymphalidae].  
 ——— *virgata*. Stichel. 644.
- HELIOCAUSTA** [Tineidae].  
 ——— *episcarca*. Lower. 401.  
 ——— *pericosma*. Lower. 401.
- HELIOSIA** [Arctiidae].  
 ——— *miera*. Hampson. 299.
- HEMEROPHILA** [Geometridae].  
 ——— *praestantaria*. Püngeler.  
 494.
- HEMEROPLANES** [Sphingidae].  
 ——— *inuus*. Rothschild and Jordan.  
 539A.
- HEMICERAS** [Notodontidae].  
 ——— *egregia*. Dognin. 121.
- HEMIHYALEA** [Arctiidae].  
 ——— *erganoides*. Dognin. 121.
- HEMISTOLA** [Geometridae].  
 ——— (?) *punctifimbria*. Warren.  
 702.
- HENOTESIA** [Nymphalidae].  
 ——— *ubenica*. Thurnau. 668.
- HERACULA** [Lymantridae].  
 ——— *leonina*. Turner. 677.
- HERCULIA** [Pyralidae].  
 ——— *medialis*. Hampson. 302.
- HETERODISCA** [Geometridae].  
 ——— *ignea*. Warren. 702.
- HETEROGRAPHIS** [Pyralidae].  
 ——— *fulvmarginella*. Hampson.  
 302.  
 ——— *microstictella*. Hampson.  
 302.  
 ——— *molybdophora*. Lower. 399.  
 ——— *obscuralis*. Hampson. 302.  
 ——— *proleuca*. Lower. 399.
- HETEROMIZA** [Geometridae].  
 ——— *robusta*. Warren. 702.
- HETERONYGMIA** [Lymantridae].  
 ——— *chiamona*. Swinhoe. 654.
- HETERORMISTA** [Noctuidae].  
 ——— *fulvitaenia*. Warren. 699.
- HETEROSAIS** [Nymphalidae].  
 ——— *pallidula*. Haensch. 294.
- Heteroschista** n. gen. [Thyrididae].  
 Warren. 701.  
 ——— *nigranalie*. Warren. 701.
- HETERUSIA** [Zygaenidae].  
 ——— *ligata*. Rothschild and  
 Jordan. 541.  
 ——— *regina*. Rothschild and  
 Jordan. 541.
- HETERUSIA** [Geometridae].  
 ——— *rubrimarmorata*. Dognin.  
 121.
- HIMELLA** [Noctuidae].  
 ——— *azucara*. Schaus. 557.  
 ——— *crocostiela*. Schaus. 557.  
 ——— *diplogramma*. Schaus. 557.  
 ——— *gigantea*. Schaus. 557.  
 ——— *goniostigma*. Schaus. 557.  
 ——— *ignescens*. Schaus. 557.  
 ——— *leucopera*. Schaus. 557.  
 ——— *marginalis*. Schaus. 557.  
 ——— *mediorufa*. Schaus. 557.  
 ——— *nigripars*. Schaus. 557.  
 ——— *ochrota*. Schaus. 557.  
 ——— *pallescens*. Schaus. 557.  
 ——— *rubripuncta*. Schaus. 557.  
 ——— *secedens*. Schaus. 557.  
 ——— *violascens*. Schaus. 557.
- HIPPOTION** [Sphingidae].  
 ——— *aurora*. Rothschild and  
 Jordan. 539A.  
 ——— *isis*. Rothschild and Jordan.  
 539A.  
 ——— *rebeli*. Rothschild and  
 Jordan. 539A.
- HIPTELIA** [Noctuidae].  
 ——— *apfelbecki*. Rebel. 504.



- CAPNODES** [Noctuidae].  
 — *albisigillata*. Warren. 699.  
 — *badia*. Swinhoe. 657.  
 — *finipalpis*: *trimaculata*  
   n. subsp. Warren. 699.  
 — *niphomacula*. Lower. 399.
- CAPTOSILIA** [Pieridae].  
 — *scylla*: *bangkejana* n. subsp.  
   Fruhstorfer. 239.
- CARADRINA** [Noctuidae].  
 — *acallis*. Turner. 677.  
 — (?) *lophota*. Lower. 399.  
 — *poliocrossa*. Turner. 677.  
 — (?) *pudica*. Lower. 399.  
 — *sculischlejeli*. Püngeler. 495.
- CAREA** [Noctuidae].  
 — *plagioscia*. Turner. 677.  
 — *robinsoni*. Swinhoe. 657.
- CARIA** [Erycinidae].  
 — *mareyas*. Godman. 280.  
 — *smaragdina*. Godman. 280.
- CARNEADES** [Noctuidae].  
 — *focinus*. Smith. 624.  
 — *masculinus*. Smith. 624.  
 — *rumatana*. Smith. 621.
- CARPELLA** [Geometridae].  
 — *marginata*. Dognin. 121.
- CASBIA** [Geometridae].  
 — *albinotata*. Warren. 702.  
 — *profusa* n. ab.  
   Warren. 702.
- CASCERA** [Notodontidae].  
 — *amydra*. Turner. 678.
- CATARBELA** n. gen. [Arbelidae]. Aurivillius. 8.  
 — *strigosa*. Aurivillius. 8.
- CATOCALA** [Noctuidae].  
 — *aholibah* var. *coloradensis*  
   n. var. Beutenmüller. 40.  
 — *amica* var. *suffusa* n. var.  
   Beutenmüller. 40.  
 — *edwardsi* n. nom. Kuznecov.  
   371.  
 — *mesopotamica* n. nom.  
   Kuznecov. 371.  
 — *orba*. Kuznecov. 372.  
 — *relicta* var. *clara* n. var.  
   Beutenmüller. 40.  
 — *unijuga* var. *fletcherii* n. var.  
   Beutenmüller. 40.
- CATORIA** [Geometridae].  
 — *canidentata*. Dognin. 121.
- Cechenena** n. gen. [Sphingidae]. Rothschild and Jordan. 539A.  
 — *helops*: *papuana* n. subsp.  
   Rothschild and Jordan. 539A.
- CELAENA** [Noctuidae].  
 — *calcirena*. Püngeler. 494.
- CELAMA** [Arctiidae].  
 — *fovifera*. Hampson. 299.  
 — *omphalota*. Hampson. 299.
- CELERENA** [Geometridae].  
 — *hirtipes*. Warren. 702.  
 — *nigriceps*. Warren. 702.  
 — *siamica*. Swinhoe. 655.
- CELERIO** [Sphingidae].  
 — *euphorbiae*: *conspicua* n.  
   subsp. Rothschild and  
   Jordan. 539A.  
 — *nerrosa* n. subsp.  
   Rothschild and Jordan. 539A.
- CEMIOSTOMA** [Tineidae].  
 — *aceris*. Fuchs. 244.
- Centrocena** n. gen. [Sphingidae]. Rothschild and Jordan. 539A.
- CEPHONODES** [Sphingidae].  
 — *armatus*. Rothschild and  
   Jordan. 539A.  
 — *mariana* n. subsp.  
   Rothschild and Jordan. 539A.  
 — *junus*: *austrosundanus* n.  
   subsp. Rothschild and  
   Jordan. 539A.  
 — *leucogaster*. Rothschild and  
   Jordan. 539A.  
 — *woodfordi*: *luisae* n. subsp.  
   Rothschild and Jordan. 539A.  
 — *xanthus*. Rothschild and  
   Jordan. 539A.
- CERACE** [Tortricidae].  
 — *triphaenella*. Snellen. 632.
- CERATINIA** [Nymphalidae].  
 — *moebiusi*. Haensch. 294.  
 — *napona*. Haensch. 294.  
 — *tenna*. Haensch. 294.
- CERATOPHORA** [Tineidae].  
 — *phoxopterella*. Snellen. 632.
- Ceridia** n. gen. [Sphingidae]. Rothschild and Jordan. 539A.  
 — *mira*. Rothschild and  
   Jordan. 539A.

- CERMA** [Noctuidae].  
 — *fascia*. Smith. 625.
- CEROSTOMA** [Tineidae].  
 — *angelicella*. Busck. 65.  
 — *arizonella*. Busck. 65.  
 — *barberella*. Busck. 65.  
 — *manella*. Busck. 65.  
 — *olivella*. Busck. 65.  
 — *schwarzella*. Busck. 65.  
 — *striatella*. Busck. 65.  
 — *unicipunctella*. Busck. 65.
- CERTNEA** [Noctuidae].  
 — *decorata*. Swinhoe. 655.
- CETHOSIA** [Nymphalidae].  
 — *cydippe*: *iphigenia* n. subsp. Fruhstorfer. 201.  
 — *obiana* n. subsp. Fruhstorfer. 221.  
 — *woodlarkiana* n. subsp. Fruhstorfer. 202.
- Chaerocina** n. gen. [Sphingidae]. Rothschild and Jordan. 539A.
- CHALIA** [Psychidae].  
 — *künckelii*. Heylaerts. 316.
- CHAMAELEIMNAS** [Erycinidae].  
 — *pansa*. Godman. 280.
- CHARAXES** [Nymphalidae].  
 — *acuminatus*. Thurnau. 668.  
 — *boueti*: *rectans* n. subsp. Rothschild and Jordan. 543.  
 — *castor*: *comoranus* n. subsp. Rothschild. 539.  
 — *harmodius*: *infernus* n. subsp. Rothschild. 539.  
 — *orilus*: *kissericus* n. subsp. Fruhstorfer. 197.  
 — *tiridates*: *marginatus* n. subsp. Rothschild and Jordan. 543.
- Charidia** n. gen. [Hesperidae]. Mabille. 406.
- CHARIS** [Erycinidae].  
 — *arcuata*. Godman. 280.
- CHARLTONA** [Pyralidae].  
 — *fusca*. Hampson. 302.
- CHESIAODODES** [Geometridae].  
 — *bidisata*. Dyar. 149.
- CHILENA** [Lasiocampidae].  
 — *marshalli*. Aurivillius. 8.
- CHILO** [Pyralidae].  
 — *bozanus*. Hering. 311.
- CHTHONAEMA** [Arctiidae].  
 — *amelaena*. Hampson. 299.  
 — *capensis*. Hampson. 299.  
 — *flavicincta*. Hampson. 299.  
 — *selangorica*. Hampson. 299.  
 — *yunnanensis*. Hampson. 299.
- CHLAENOGRAMMA** [Sphingidae].  
 — *undata*. Rothschild and Jordan. 539A.  
 — *cinerea* n. subsp. Rothschild and Jordan. 539A.
- CHLORIDEA** [Noctuidae].  
 — *chilensis*. Hampson. 300.  
 — *metachrisea*. Hampson. 300.
- CHLOROCHROMA** [Geometridae].  
 — *gigas*. Warren. 702.  
 — *minor* n. ab. Warren. 702.  
 — *indistincta*. Warren. 702.  
 — *marginipunctata*. Warren. 702.  
 — *minutipuncta*. Warren. 702.  
 — *polluta*. Warren. 702.  
 — *punctulata*. Warren. 702.
- Chlorocleptria** n. gen. [Noctuidae]. Hampson. 300.
- CHLOROCLYSTA** [Geometridae].  
 — *fulminea*. Dognin. 121.
- CHLOROCLYSTIS** [Geometridae].  
 — *pallidivirens*. Warren. 702.  
 — *rectaria*. Hampson. 302.  
 — *semirasata*. Warren. 702.
- CHOASPES** [Hesperidae].  
 — *hemizanthus*. Rothschild and Jordan. 541.  
 — *illuensis*: *ornatus* n. subsp. Rothschild and Jordan. 541.
- CHONDROSTEGA** [Lasiocampidae].  
 — *aurivillii*. Püngeler. 493.
- CHOREUTIS** [Tineidae].  
 — *myllerana* var. *holotoxa* n. var. Meyrick. 421.
- CHRYSAUGE** [Pyralidae].  
 — *citrina*. Druce. 128.  
 — *eutelia*. Druce. 128.
- CHRYSOCHLOROMA** [Geometridae].  
 — *ornatimembra*. Warren. 700.

*Gelechia (Lita) nordlandicolella* n. sp. Norwegen. **Strand**, E. Ent. Zs., Guben, **16**, (1902-03), 1902, (21).

—— *operculella*. California. **Clarke**, W. T. Agric. Exp. Sta., California, Berkeley, Bull., No. **135**, 1901, (30, with 10 figs.). 23 cm.; [review], Washington, D.C.; U. S. Dept. Agric. Off. Exp. Sta. Rec., **13**, 1902, (765-766).

—— *similella* n. sp. **Snellen**, P. C. T. s' Gravenhage, Tijdschr. Ent., **46**, [1903], (44, pl. V, figs. 5-6).

*Gnorimoschema* nn. spp. America. **Busck**, A. Washington, D.C. Smithsonian Inst., Nation. Mus. Proc., **25**, 1903, (825-834).

—— nn. spp. **Kearfott**, W. D. New York, N.Y., J. Ent. Soc., **11**, 1903, (158-160).

*Gracilaria strassenella* n. sp. Antarktisches Gebiet. **Enderlein**, G. Wissenschaftliche Ergebnisse der deutschen Tiefsee-Expedition, **3**, Lfg 7, Jena, 1903, (251).

*Greya* n. gen. related to *Incurvaria*. **Busck**, A. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (194).

*Guestia* ? nn. spp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (226-227).

*Harpella aureatella* n. sp. **Snellen**, P. C. T. s' Gravenhage, Tijdschr. Ent., **46**, [1903], (47, pl. IV, fig. 13).

*Hedycharis* n. gen., *H. phoenobapta* n. sp. Australia. **Turner**, A. J. Sydney, N.S.W., Proc. Linn. Soc., N. S. Wales, **28**, 1903, (90).

*Heliocausta* nn. spp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (220).

*Holoscolia* nn. spp. **Rebel**, H. D. ent. Zs. Iris, Berlin, **15**, 1902, (100-126).

*Hoplitica rhodopepla* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (221).

*Hypsolophus helianthemi* n. sp. Spain. **Walsingham**, Lord. Ent. Mag., London, **39**, 1903, (265-266).

*Hyponomeuta malinella*, Winterquartier. **Lucas**, E. Pomol. Monatshefte, Stuttgart, **49**, 1903, (77-78).

*Iphierga crypsilopa* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (73).

—— *polyzona* n. sp. Australia. **Lower**, O. B. l.c. (239).

*Lactura eupocila* n. sp. Australia. **Turner**, A. J. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, **28**, 1903, (86).

*Lecithocera* nn. spp. **Snellen**, P. C. T. s' Gravenhage, Tijdschr. Ent., **46**, [1903], (35-37, pl. IV, figs. 6-8).

*Lepidoscia* nn. spp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (234-237).

—— *melanogramma* n. sp. Australia. **Lower**, O. B. l.c. (71).

*Limnoecia xanthopelta* n. sp. Australia. **Lower**, O. B. l.c. (231).

*Linosticha* nn. spp. Australia. **Lower**, O. B. l.c. (222).

*Lita trinella* n. sp. **Fuchs**, A. Stettiner ent. Ztg., **64**, 1903, (9).

*Lithocolletis hamameliella* n. sp. **Busck**, A. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (189).

*Macrozygona* n. gen., *M. microtoma* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (200).

*Malacotricha deceptella* n. sp. **Snellen**, P. C. T. s' Gravenhage, Tijdschr. Ent., **46**, [1903], (49, pl. IV, fig. 9).

*Megacraspedus pusillus* n. sp. Spain. **Walsingham**, Lord. Ent. Mag., London, **39**, 1903, (266).

*Micropteryx kardamyliensis* n. sp. Morea. **Rebel**, H. Nachtrag. Berliner ent. Zs., **48**, 1903, (248).

*Mompha conturbatella* H. B., description of the larva and pupa. **Banks**, E. R. Ent. Mag., London, **39**, 1903, (133-136).

*Narycia* nu. spp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (231-237).

*Neodactylota* n. gen., *N. barberella* n. sp. America. **Busck**, A. Washington, D.C., Smithsonian Inst., Nation. Mus., Proc., **25**, 1903, (835-836).

*Ocystola paralia* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (225).

*Olycha* n. gen., *O. grossepunctella* n. sp. **Snellen**, P. C. T. s' Gravenhage, Tijdschr. Ent., **46**, [1903], (28, 29, pl. IV. figs. 2, 3).

*Opasyga* n. gen., *O. eugramma* nn. spp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (230).

*Paltodora* nn. spp. America. **Busck**, A. Washington, D.C., Smithsonian Inst., Nation. Mus. Proc., **25**, 1903, (776-778).

*Paralechia* n. gen. America. **Busck**, A. l.c. (820).

*Philobata* nn. spp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (223).

*Pleurota minimella* n. sp. **Rebel**, H. D. ent. Zs. Iris, Berlin, **15**, 1902, (100-126).

*Procometis* nn. spp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (199-200).

*Prodozus*, North American species. **Dyar**, H. G. New York, N.Y., J. Ent. Soc., **11**, 1903, (102-104).

*Pronuba*, North American species. **Dyar**, H. G. l.c. (102-104).

*Protomeus* n. gen., *P. brunneus* n. sp. America. **Busck**, A. Washington, D.C., Smithsonian Inst., Nation. Mus. Proc., **25**, 1903, (837-838).

*Prototechia* n. gen. Australia. **Meyrick**, E. Ent. Mag., London, **39**, 1903, (291).

*Pseocadia* nn. spp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (227-228).

—— *pseudocythrella* n. sp. **Rebel**, H. D. ent. Zs. Iris, Berlin, **15**, 1902, (100-126).

*Recurvaria* nn. spp. America. **Busck**, A. Washington, D.C., Smithsonian Inst., Nation. Mus. Proc., **25**, 1903, (810-814).

—— nn. spp. **Kearfott**, W. D. New York, N.Y., J. Ent. Soc., **11**, 1903, (154-157).

*Saropla poliochra* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (224).

*Scardia porphyrea* n. sp. Australia. **Lower**, O. B. l.c. (74).

—— *xanthobapta* n. sp. Australia. **Lower**, O. B. l.c. (233).

*Scythris* nn. spp. **Rebel**, H. D. ent. Zs. Iris, Berlin, **15**, 1902, (100-126).

*Stagmatophora divitella* Cst. n'est pas cécidogène. **Chrétien**, P. Paris, Bull. soc. ent., **1902**, (261-264).

*Steganoptycha pyricolana*, orchard pest. **Sanderson**, E. D. Agric. Exp. Sta., Delaware, Newark, Bull., No. **53**, 1901, (19, with 11 figs.). 23 cm.; [review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta., Rec., **13**, 1902, (872-873).

*Symmoca* nn. spp. **Rebel**, H. D. ent. Zs. Iris, Berlin, **15**, 1902, (100-126).

—— *zeitunella* n. sp. **Bang-Haas** in **Rebel**, H. l.c. (100-136).

*Telecrates streptogramma* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (229).

*Telphusa betulella*. America. **Busck**, A. Washington, D.C., Smithsonian Inst., Nation. Mus. Proc., **25**, 1903, (788).

*Thaumtopsia daeckellus* n. sp. **Kearfott**, W. D. New York, N.Y., J. Ent. Soc., **11**, 1903, (149).

*Trachoma walsinghamiella* n. sp. N. America. **Busck**, A. l.c. (57).

*Trichotaphe fernaldella* n. sp. America. **Busck**, A. Washington, D.C., Smithsonian Inst., Nation. Mus. Proc., **25**, 1903, (915).

*Trypanisma fagella* n. sp. America. **Busck**, A. l.c. (816).

*Xenopathia nitea* n. sp. **Rebel**, H. D. ent. Zs. Iris, Berlin, **15**, 1902, (100-126).

*Xylorycta philonympha* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (229).

■ *Xysmatodoma* nn. spp. Australia. **Lower**, O. B. l.c. (71-73).

*Ypsolophus lygropa* n. sp. Australia. **Lower**, O. B. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (70).

—— *pometellus*. **Slingerland**, M. V. Agric. Exp. Sta., New York, (Cornell station). Ithaca, Bull., No. **187**, 1901, (77-101, with 9 figs.); [review], Washington, D.C., U. S. Dept. Agric., Off. Exp. Sta., Rec., **13**, 1901, (68).

*Zaratha cramerella* . . . neue Futterpflanze. (Holländisch) **Zehntner**, L. Salatiga, Bull. Cacao, **4**, 1902, (53-56).

- LINOSTICHA** [Tineidae].  
 — *amphileuca*. Lower. 401.  
 — *myriospila*. Lower. 401.  
**LIPHYRA** [Geometridae].  
 — *grandis*. Weymer. 714.  
**LIPTENA** [Lycaenidae].  
 — *submacula*. Lathy. 378.  
**LITA** [Tineidae].  
 — *trinella*. Fuchs. 243.  
**LITHOCELLETIS** [Tineidae].  
 — *hamameliella*. Busck. 64.  
**LITHOSIA** [Arctiidae].  
 — *deplana* var. *unicolor* n. var. Banks. 15.  
**Lobophorodes** n. gen. [Geometridae]. Hampson. 302.  
 — *undulans*. Hampson. 302  
**LOMADONTA** [Lymantridae].  
 — *johnstoni*. Swinhoe. 654.  
**Lomocyma** n. gen. [Sphingidae]. Rothschild and Jordan. 539A.  
**LOXOCHILA** [Geometridae].  
 — ? *meeki*. Warren. 702.  
**LOXOPERA** [Tortricidae].  
 — *rubiginana*. Walsingham. 694.  
**LUMA** [Pyralidae].  
 — *longidentalis*. Hampson. 302.  
**LUPERINA** [Noctuidae].  
 — *migrata*. Smith. 625.  
**LYCAENA** [Lycaenidae].  
 — *babhru*. Weeks. 706.  
 — *chlorina*. Skinner. 602.  
 — *neurona*. Skinner. 602.  
 — *ruberrothei*. Weeks. 708.  
**LYCAENESTHER** [Lycaenidae].  
 — *dulcis*. Pagenstecher. 459.  
 — *leonina*. Bethune-Baker. 36.  
 — *marshalli*. Bethune-Baker. 36.  
 — *nigrocaudata*. Pagenstecher. 459.  
 — *subnitens*. Bethune-Baker. 36.  
 — *suquala*. Pagenstecher. 459.  
**LYCAUGES** [Geometridae].  
 — *fragilis*. Warren. 701.  
**LYCOPHOTIA** [Noctuidae].  
 — *achromatica*. Hampson. 300.  
 — *atrioparsa*. Hampson. 300.  
 — *atristriata*. Druce. 128.  
 — *brunescens*. Hampson. 300.  
**LYCOPHOTIA** [Noctuidae].  
 — *ectinacea*. Hampson. 300.  
 — *fuscirufa*. Hampson. 300.  
 — *macrina*. Hampson. 300.  
 — *melanobasis*. Hampson. 300.  
 — *mendosica*. Hampson. 300.  
 — *microstigma*. Schaus. 537.  
 — *ochronota*. Hampson. 300.  
 — *orthogramma*. Hampson. 300.  
 — *pulverea*. Hampson. 300.  
 — *radiola*. Hampson. 300.  
 — *tamerlana*. Hampson. 300.  
 — *toxistigma*. Hampson. 300.  
**Lyocosphingia** n. gen. [Sphingidae]. Rothschild and Jordan. 539A.  
**LYGROPIA** [Pyralidae].  
 — *chryselectra*. Lower. 399.  
**LYMANTRIA** [Lymantridae].  
 — *brunneiplaga*. Swinhoe. 654.  
 — *carriala*. Swinhoe. 654.  
 — *cerebosa*. Swinhoe. 654.  
 — *dissoluta*. Swinhoe. 654.  
 — *eddeli*. Swinhoe. 654.  
 — *galinara*. Swinhoe. 654.  
 — *ganaha*. Swinhoe. 654.  
 — *gondona*. Swinhoe. 654.  
 — *lugardi*. Swinhoe. 654.  
 — *moesta*. Swinhoe. 654.  
 — *tottea*. Swinhoe. 654.  
 — *turneri* n. nom. Swinhoe. 654.  
 — *xylina*. Swinhoe. 654.  
**Lythroides** n. gen. [Noctuidae]. Smith. 621.  
 — *discistriga*. Smith. 621.  
 — *radiatus*. Smith. 621.  
 — *venatus*. Smith. 621.  
**MACNA** [Pyralidae].  
 — *praetextata*. Hering. 311.  
**MACROGLOSSUM** [Sphingidae].  
 — *albigutta*. Rothschild and Jordan. 539A.  
 — *floridense* n. subsp. Rothschild and Jordan. 539A.  
 — *castaneum*. Rothschild and Jordan. 539A.  
 — *corythus* : *fuscicanda* n. subsp. Rothschild and Jordan. 539A.  
 — *platyzanthum* n. subsp. Rothschild and Jordan. 539A.  
 — *zanthurus* n. subsp. Rothschild and Jordan. 539A.

## MACROGLOSSOM [Sphingidae].

- *eichhorni*. Rothschild and Jordan. 539A.  
 — *fritzei*. Rothschild and Jordan. 539A.  
 — *fruhstorferi*: *latifascia* n. subsp. Rothschild and Jordan. 539A.  
 — *hirundo*: *vitiense* n. subsp. Rothschild and Jordan. 539A.  
 — *insipida*: *papuanum* n. subsp. Rothschild and Jordan. 539A.  
 — — *poecilum* n. subsp. Rothschild and Jordan. 539A.  
 — *joannisi*. Rothschild and Jordan. 539A.  
 — *mediovitita*. Rothschild and Jordan. 539A.  
 — *meeki*. Rothschild and Jordan. 539A.  
 — *melas*. Rothschild and Jordan. 539A.  
 — *multifascia*. Rothschild and Jordan. 539A.  
 — *nubilum*. Rothschild and Jordan. 539A.  
 — *pachycerus*. Rothschild and Jordan. 539A.  
 — *particolor*. Rothschild and Jordan. 539A.  
 — *phocinum*. Rothschild and Jordan. 539A.  
 — *rectans*. Rothschild and Jordan. 539A.  
 — *soror*. Rothschild and Jordan. 539A.  
 — *stigma*. Rothschild and Jordan. 539A.  
 — *ungues*. Rothschild and Jordan. 539A.  
 — *variegatum*. Rothschild and Jordan. 539A.  
 — *vidua*. Rothschild and Jordan. 539A.

## MACROPHLOEA [Nymphalidae].

- *phaenareta*: *irma* n. subsp. Fruhstorfer, H. 221.

## MACROXYGONA n. gen. [Tineidae]. Lower. 400.

- *microtoma*. Lower. 400.

## MAHATHALA [Lycaenidae].

- *hainani*. Bethune-Baker. 35.

## MALACOTRICHIA [Tineidae].

- *deceptella*. Snellen. 632.

## MAMESTRA [Noctuidae].

- *artesta*. Smith. 621.  
 — *bifida*. Püngeler. 494.  
 — *demotica*. Püngeler. 494.  
 — *flavidentula*. Schaus. 557.  
 — *goniophora*. Schaus. 557.  
 — *lunolacta*. Smith. 624.  
 — *paranica*. Schaus. 557.  
 — *viriditincta*. Schaus. 557.  
 — *xanthocosma*. Turner. 677.

## MANRUTA n. gen. [Noctuidae]. Smith. 621.

- *elingua*. Smith. 621.

## MARAFANA [Noctuidae].

- *rhodea*. Turner. 677.

## MARASMITA [Pyralidae].

- *hexagona*. Lower. 399.

## MAROLA n. gen. [Hesperiidae]. Mabille. 406.

- *tamyris*. Mabille. 406.

## MARBLA n. gen. [Lymantridae]. Swinhoe. 654.

## MARGARONIA [Thyrididae].

- *eburnealis*. Swinhoe. 657  
 — *seitzialis*. Hering. 311.

## MARIOOPA [Pyralidae].

- *lustrella*. Dyar. 149.

## MARSHALLIANA n. gen. [Arbelidae].

- Aurivillius. 8.  
 — *bivittata*. Aurivillius. 8.

## MARUMBA [Sphingidae].

- *amboinicus*: *celebensis* n. subsp. Rothschild and Jordan. 539A.  
 — *nympha*. Rothschild and Jordan. 539A.  
 — *spectabilis*: *malayana* n. subsp. Rothschild and Jordan. 539A.  
 — *timora*. Rothschild and Jordan. 539A.  
 — — *laotensis* n. subsp. Rothschild and Jordan. 539A.

## MASSEPHA [Pyralidae].

- *ambialis*. Hampson. 302.

## MECISTOPTERA [Noctuidae].

- *lithochroa*. Lower. 399.

## MECODINA [Noctuidae].

- *asbolaea*. Lower. 399.  
 — *semophora*. Lower. 399.

## MEGACORMA n. gen. [Sphingidae]. Rothschild and Jordan. 539A.

## MEGACRASPEDUS [Tineidae].

- *pusillus*. Walsingham. 694.

- MEGATHYMUS** [Hesperiidae].  
 ——— *ursus*. Poling. 475.
- MELANCHRA** [Noctuidae].  
 ——— *exquisita*. Philpott. 464.  
 ——— *grandiosa*. Philpott. 464.  
 ——— *umbra*. Hudson. 332.
- MELICOLEPTRIA** [Noctuidae].  
 ——— *kasloa*. Smith. 621.
- MELISSOBLAPTES** [Pyralidae].  
 ——— *agramma*. Lower. 399.
- MELITAEA** [Nymphalidae].  
 ——— *damoetas*. Skinner. 608.  
 ——— *matura* var *urbani* n. var.  
       Hirschke. 317.  
 ——— *streckeri*. Ellesworth. 162.
- MESCLINIA** [Pyralidae].  
 ——— *olivescalis*. Hampson. 302.
- Mesembreuxoa** n. gen. [Noctuidae].  
 ——— Hampson. 300.  
 ——— *chilensis*. Hampson. 300.
- MESENE** [Erycinidae].  
 ——— *eanes*. Godman. 280.  
 ——— *iasis*. Godman. 280.
- MESENOPSIS** [Erycinidae].  
 ——— *pulchella*. Godman. 280.
- MESOLASIA** [Syntomidae].  
 ——— *hampsoni*. Dognin. 121.
- Mesoleuca** n. gen. [Ceratocampidae].  
 ——— Packard. 457.
- MESOSEMIA** [Erycinidae].  
 ——— *chalybaea*. Rüber. 531.  
 ——— *orbana*. Godman. 280.  
 ——— *phace*. Godman. 280.  
 ——— *thera*. Godman. 280.
- MESOTROPHE** [Geometridae].  
 ——— ? *rufiplaga*. Warren. 702.
- METACHARIS** [Erycinidae].  
 ——— *indissimilis*. Weeks. 706.
- METACHROSTIS** [Noctuidae].  
 ——— *costiplaga*. Warren and  
       Rothschild. 703.  
 ——— *fausta*. Swinhoe. 655.  
 ——— *sciaptera*. Lower. 399.
- METARBELA** [Arbelidae].  
 ——— (?) *umtaliana*. Aurivillius. 8.
- Metardaris** n. gen. [Hesperiidae].  
 ——— Mabilie. 406.
- METAREVA** [Arctiidae].  
 ——— *albescens*. Dognin. 121.  
 ——— *flavescens*. Dognin. 121.
- METASIA** [Pyralidae].  
 ——— *annuliferalis*. Hampson.  
       302.  
 ——— *coniotalis*. Hampson. 302.  
 ——— *ectodontalis*. Lower. 399.  
 ——— *phragmatias*. Lower. 399.  
 ——— *straminealis*. Hampson. 302.
- MIANTONOTA** [Geometridae].  
 ——— *punctilinea*. Dognin. 121.
- Microgotis** n. gen. [Noctuidae]. Hamp-  
 ——— son. 300  
 ——— *acydonta*. Hampson. 300.  
 ——— *axylide*. Hampson. 300.  
 ——— *exusta*. Hampson. 300.  
 ——— *lacetata*. Hampson. 300.  
 ——— *microstigma*. Hampson. 300.  
 ——— *prosarca*. Hampson. 300.  
 ——— *rufescens*. Hampson. 300.
- Micrilema** n. gen. [Arctiidae]. Hamp-  
 ——— son. 299.  
 ——— *craushayi*. Hampson. 299.
- MICROPENTILA** [Lycaenidae].  
 ——— *dorothea*. Bethune-Baker.  
       36.
- MICROPTERYX** [Tineidae].  
 ——— *kardamylensis*. Rebel. 503.
- Microschema** n. nom. [Geometridae].  
 ——— Warren. 702.
- MICROSEMA** [Geometridae].  
 ——— *attenuata*. Dognin. 121.
- Microsphinx** n. gen. [Sphingidae]. Roth-  
 ——— schild and Jordan. 539A.
- MILIONIA** [Geometridae].  
 ——— *distorta*. Rothschild and  
       Jordan. 541.  
 ——— *eichhorni*. Rothschild and  
       Jordan. 541.  
 ——— *maerospila*. Jordan. 346.  
 ——— *paradisea*. Jordan. 346.
- Miltomiges** n. gen. [Hesperiidae]. Ma-  
 ——— bille. 406.
- Mionectes** n. gen. [Hesperiidae]. Mabilie.  
 ——— 406.
- Miraleria** n. gen. [Nymphalidae].  
 ——— Haensch. 294.
- MISELIA** [Noctuidae].  
 ——— *iota*. Hudson. 332.
- MOMA** [Noctuidae].  
 ——— *geminata*. Smith. 624.
- MONETHE** [Erycinidae].  
 ——— *molione*. Godman. 280.
- MONOBOLODES** [Uraniidae].  
 ——— *ustimacula*. Warren. 702.

- Morphindra** n. gen. [Nymphalidae].  
Röber. 531.
- MORPHO** [Nymphalidae].  
—— *electra*. Röber. 531.  
—— *fruhstorferi*. Röber. 531a.  
—— *hermione*. Röber. 531.  
—— *thoosa*. Smyth. 630.
- MUCRONODES** [Geometridae].  
—— *inopia*. Dognin. 121.
- MYCALESIS** [Nymphalidae].  
—— *campina*. Aurivillius. 8.  
—— *obscura*. Aurivillius. 8.  
—— *vicaria*. Thureau. 668.
- MYELAIS** [Pyralidae].  
—— *ephestialis*. Hampson. 302.
- MYLOTHRIS** [Pieridae].  
—— *erlangeri*. Pagenstecher. 459.
- MYRINA** [Lycanidae].  
—— *subornata*. Lathy. 378.
- MYRIOBLEPHARA** [Geometridae].  
—— *callichlora*. Warren. 702.  
—— *confusa*. Warren. 702.  
—— *flexilinea*. Warren. 702.  
—— *albida* n. ab.  
Warren. 702.  
—— *fasciata* n. ab.  
Warren. 702.  
—— *ligdiodes*. Warren. 702.  
—— *minima*. Warren. 702.  
—— *muscosa*. Warren. 702.  
—— *impleta* n. ab.  
Warren. 702.  
—— *palumbina*. Warren. 702.  
—— *pergrisea*. Warren. 702.  
—— *subtrita*. Warren. 702.  
—— *vicida*. Warren. 702.  
—— *brunnea* n. ab.  
Warren. 702.
- MYSCELUS** [Hesperiidae].  
—— *illustris*. Mabille. 406.  
—— *pegasus*. Mabille. 406.
- NACOLEIA** [Pyralidae].  
—— *albiciliaris*. Hampson. 302.  
—— *albiflavalis*. Hampson. 302.  
—— *ustulalis*. Hampson. 302.  
—— *zanthoscota*. Lower. 399.
- NADIASA** [Lasiocampidae].  
—— (?) *cinerea*. Aurivillius. 8.  
—— (?) *sanguineta*. Aurivillius. 8.
- NAMANGANA** [Noctuidae].  
—— *contumax*. Püngeler. 494.
- Nannoparce** n. gen. [Sphingidae]. Rothschild and Jordan. 539a.
- NAPEOGENES** [Nymphalidae].  
—— *avila*. Haensch. 294.  
—— *quadralis*. Haensch. 294.
- NARYOIA** [Tineidae].  
—— *callista*. Lower. 401.  
—— *campylota*. Lower. 401.  
—— *epichrysa*. Lower. 401.  
—— *epitricha*. Lower. 401.  
—— *eusia*. Lower. 401.  
—— *gastromela*. Lower. 401.  
—— *hyalistis*. Lower. 401.  
—— *lasiomiera*. Lower. 401.  
—— *photidias*. Lower. 401.  
—— *semiota*. Lower. 401.  
—— *trizona*. Lower. 401.
- NEARCHA** [Geometridae].  
—— *oxyptera*. Lower. 400.  
—— *pyroaema*. Lower. 400.
- NECTARIA** [Nymphalidae].  
—— *idea*: *rosseleri* n. subsp.  
Fruhstorfer. 239.
- NEURYIA** [Erycinidae].  
—— *gerhardi*. Mengel. 415.
- Neocleptia** n. gen. [Noctuidae]. Hampson. 300.
- NEOCOENYRA** [Nymphalidae].  
—— *fülleborni*. Thureau. 668.  
—— *heckmanni*. Thureau. 668.
- Neodactylota** n. gen. [Tineidae]. Busck. 63.  
—— *barberella*. Busck. 63.
- Neogene** n. gen. [Sphingidae]. Rothschild and Jordan. 539a.
- NEOMOENAS** [Nymphalidae].  
—— *inornata*. Elwes. 164.
- Neoscelis** n. gen. [Geometridae]. Hampson. 302.  
—— *ritula*. Hampson. 302.
- Neostega** n. gen. [Geometridae]. Warren. 701.  
—— *flaviguttata*. Warren. 701.
- NEPHELE** [Sphingidae].  
—— *funebis*: *maculosa* n. subsp.  
Rothschild and Jordan. 539a.  
—— *oenopion*: *continentis* n. subsp.  
Rothschild and Jordan. 539a.  
—— *stictica* n. subsp.  
Rothschild and Jordan. 539a.
- NEPHELODES** [Noctuidae].  
—— *terialis*. Smith. 624.



## EUEIDES [Nymphalidae].

- *edias*.; *pallens* n. subsp.  
Stichel. 642.
- *vialis* n. subsp.  
Stichel. 642.
- *vicinialis* n. subsp.  
Stichel. 642.
- *isabella*.; *arguata* n. subsp.  
Stichel. 642.
- var. *brunnea* n.  
var. Stichel. 642.
- *dissoluta* n. subsp.  
Stichel. 642.
- var. *margaritifera*  
n. var. Stichel. 642.
- *seitsi* n. subsp.  
Stichel. 642.
- var. *spoliata* n.  
var. Stichel. 642.
- *vegetissima* n.  
var. Stichel. 642.
- *lampeto* var. *amoena* n. var.  
Stichel. 642.
- *carbo* n. var.  
Stichel. 642.
- *fulginosa* n. var.  
Stichel. 642.
- *margaritifera* var. *perso-*  
*sonata* n. var. Stichel.  
642.
- *thales*.; *heraldicus* n. subsp.  
Stichel. 642.
- *surdus* n. subsp.  
Stichel. 642.

## EURETAGROTIS [Noctuidae].

- *inattenta*. Smith. 621.

## EUGRESIA [Geometridae].

- *decolorata*. Warren. 702.

## EUGOA [Arctiidae].

- *immunda*. Swinhoe. 655.

## EUIPPE [Geometridae].

- *inferna*. Warren. 702.

## EULEORIA [Tineidae].

- *atradelpha*. Lower. 401.

## EULEPIS [Nymphalidae].

- *hebe*.; *kangeanus* n. subsp.  
Fruhstorfer. 197.
- *pyrrhus*.; *babbericus* n. sub-  
sp. Fruhstorfer. 197.
- *pyrrhulus* n.  
subsp. Fruhstorfer. 197.
- *ratubela* n. subsp.  
Rothschild. 541.

## EUNICA [Erycinidae].

- *mabildei*. Röber. 531.

## EUPANYCHIS [Noctuidae].

- *mexicana*. Hampson. 300.

## EUPHAEDRA [Nymphalidae].

- *aureofasciata*. Lathy. 378.
- *ellenbecki*. Pagenstecher.  
459.
- *losinga* var. *inaequabilis*  
n. var. Thureau. 667.
- *medon* var. *albula* n. var.  
Thureau. 667.
- ab. *fraudata* n.  
Thureau. 667.
- *nigrocilia*. Lathy. 378.

## EUPITHECIA [Geometridae].

- *eurotoma*. Hampson. 302.
- *incurtaria*. Hampson. 302.
- *thermosaria*. Hampson.  
302.

## EUPROCTIS [Lymantridae].

- *alba*. Swinhoe. 654.
- *albescens* n. nom. Swinhoe.  
654.
- *anna*. Swinhoe. 656.
- *arelada*. Swinhoe. 654.
- *atrisignata*. Swinhoe. 654.
- *barbara*. Swinhoe. 656.
- *calva*. Swinhoe. 654.
- *catala* n. nom. Swinhoe.  
654.
- *cerasina*. Swinhoe. 654.
- *cheela*. Swinhoe. 654.
- *chirunda*. Swinhoe. 654.
- *civitta*. Swinhoe. 656.
- *commutanda* n. nom.  
Swinhoe. 654.
- *dana*. Swinhoe. 654.
- *drucei* n. nom. Swinhoe.  
654.
- *egregia*. Swinhoe. 654.
- *faceta*. Swinhoe. 654.
- *florida*. Swinhoe. 654.
- *fulvistrata*. Swinhoe. 654.
- *funeralis*. Swinhoe. 654.
- *gentia*. Swinhoe. 656.
- *hampsoni* n. nom. Swinhoe.  
654.
- *huntei*. Warren. 699.
- *idonea*. Swinhoe. 654.
- *livia*. Swinhoe. 654.
- *maza*. Swinhoe. 654.
- *meeki*. Druce. 129.
- *minutissima*. Swinhoe. 654.
- *mirabilis*. Swinhoe. 654.
- *nigribasalis*. Swinhoe. 654.
- *ornea*. Swinhoe. 654.
- *ostra*. Swinhoe. 654.
- *osuna*. Swinhoe. 654.
- *pecla*. Swinhoe. 654.
- *perplexa*. Swinhoe. 654.
- *postnigra*. Swinhoe. 654.

- EUPROOTIS** [Lymantridae].  
 ——— *pubescens* n. nom. Swinhoe. 654.  
 ——— *pura*. Swinhoe. 654.  
 ——— *pycnadelpha*. Lower. 399.  
 ——— *reeraba*. Swinhoe. 656.  
 ——— *sezmacula*. Swinhoe. 656.  
 ——— *sundara*. Swinhoe. 654.  
 ——— *tenuis*. Swinhoe. 654.  
 ——— *utilis*. Swinhoe. 654.  
 ——— *virgo*. Swinhoe. 654.
- EUPTYCHIA** [Nymphalidae].  
 ——— *lutela*. Weeks. 706.
- EURIPUS** [Nymphalidae].  
 ——— *consimilis*: *eurinus* n. subsp. Fruhstorfer. 213.  
 ——— *halithereae*: *mastor* n. subsp. Fruhstorfer. 213.
- EUROSIA** [Arctiidae].  
 ——— *fuliginea*. Hampson. 299.
- EUROTA** [Syntomidae].  
 ——— *tisamena*. Dognin. 121.
- EURYGLOTTIS** [Sphingidae].  
 ——— *aper*: *guttiventris* n. subsp. Rothschild and Jordan. 539A.
- EURYGONA** [Erycinidae].  
 ——— *anthe*. Godman. 280.  
 ——— *fabia*. Godman. 280.  
 ——— *licinia*. Godman. 280.  
 ——— *rhodogyne*. Godman. 280.
- EURYPHENE** [Nymphalidae].  
 ——— *ikelemba*. Aurivillius. 8.
- EURYPTERYX** [Sphingidae].  
 ——— *bhaga*: *obtruncata* n. subsp. Rothschild and Jordan. 539A.  
 ——— *shelfordi*. Rothschild and Jordan. 539A.
- EURYTELA** [Nymphalidae].  
 ——— *hiarbas*: *abyssinica*. Rothschild and Jordan. 543.  
 ——— *lita* n. subsp. Rothschild and Jordan. 543.
- EURYTHECODES** [Geometridae].  
 ——— *mutabilis*. Warren. 701.  
 ——— *immaculata* n. ab. Warren. 701.  
 ——— *pallida* n. ab. Warren. 701.  
 ——— *punctata* n. ab. Warren. 701.
- EUSARCA** [Geometridae].  
 ——— *maculifascia*. Dognin. 121.
- EUSYNOPA** n. gen. [Tineidae]. Lower. 401.
- EUSYSSAURA** n. gen. [Ceratocampidae]. Packard. 457.
- EUTHISANOTIA** [Noctuidae].  
 ——— *semiviridis*. Druce. 128.
- EUXANTHE** [Nymphalidae].  
 ——— *ansorgei*. Rothschild and Jordan. 540.
- EUXOA** [Noctuidae].  
 ——— *araucaria*. Hampson. 300.  
 ——— *aziloides*. Hampson. 300.  
 ——— *coquimbensis*. Hampson. 300.  
 ——— *cursorioides*. Hampson. 300.  
 ——— *epipyria*. Hampson. 300.  
 ——— *falcandica*. Hampson. 300.  
 ——— *hemispherica*. Hampson. 300.  
 ——— *longidentifera*. Hampson. 300.  
 ——— *nesileus*. Smith. 625.  
 ——— *nyctina*. Hampson. 300.  
 ——— *nyctopis*. Hampson. 300.  
 ——— *pallidifrons*. Hampson. 300.  
 ——— *peperida*. Hampson. 300.  
 ——— *poliotis*. Hampson. 300.  
 ——— *proleuca*. Hampson. 300.  
 ——— *pronyeta*. Hampson. 300.  
 ——— *ruficeps*. Hampson. 300.  
 ——— *rufomixta*. Hampson. 300.  
 ——— *subepiniifera*. Hampson. 300.  
 ——— *viguraea*. Hampson. 300.  
 ——— *xanthiodes*. Hampson. 300.
- EUZOPHERA** [Pyralidae].  
 ——— *albicostalis*. Hampson. 302.  
 ——— *cedrella*. Hampson. 302.
- EUZOPHERODES** [Pyralidae].  
 ——— *allocrossa*. Lower. 399.  
 ——— *ephestialis*. Hampson. 302.  
 ——— *irroralis*. Hampson. 302.
- EVERGESTIS** [Pyralidae].  
 ——— *flavifuscalis*. Rebel. 501.  
 ——— *tenuiscriptalis*. Rebel. 501.
- EVETRIA** [Tortricidae].  
 ——— *neomexicana*. Dyar. 150.
- FELTIA** [Noctuidae].  
 ——— *canities*. Hampson. 300.  
 ——— *duo-signa*. Hampson. 300.
- FISHIA** [Noctuidae].  
 ——— *exhilarata*. Smith. 621.  
 ——— *vinela*. Smith. 625.
- FLAVINIA** [Cyllopodidae].  
 ——— *superba*. Druce. 128.

**PAMMENE** [Tortricidae].  
 — *cocciferana*. Walsingham.  
 694.  
 — *ornata*. Walsingham. 694.

**PAMPHILA** [Hesperiidae].  
 — *cuadrada*. Weeks. 706.  
 — *sabuleti* var. *tecumseh* n. var.  
 Grinnell. 283.  
 — *cierecki*. Skinner. 667.

**PANACRA** [Sphingidae].  
 — *malayana*. Rothschild and  
 Jordan. 539a.  
 — *sinuata*. Rothschild and  
 Jordan. 539a.

**PANILLA** [Noctuidae].  
 — *melanosticta*. Turner. 677.

**Panogena** n. gen. [Sphingidae]. Roth-  
 schild and Jordan. 539a.

**Pantana** [Lymantridae].  
 — *aemilucida* n. nom. Swin-  
 hoe. 654.

**PAPILIO** [Papilionidae].  
 — *aeetes*: *iponus* n. subsp.  
 Fruhstorfer. 225.  
 — *aeetes*: *aegates* n. subsp.  
 Fruhstorfer. 210.  
 — *oritinus*. Fruh-  
 storfer. 210.  
 — *ormenulus* n. sub-  
 sp. Fruhstorfer. 205,  
 225.  
 — *antiphates*: *antiphanus* n.  
 subsp. Fruhstorfer. 224.  
 — *arcturus*: *arcturulus* n.  
 subsp. Fruhstorfer. 202.  
 — *aristatus*: *aristinus* n. subsp.  
 Fruhstorfer. 205.  
 — *arycles*: *arycleoides* n. subsp.  
 Fruhstorfer. 202.  
 — *bianor*: *gladiator*. Fruh-  
 storfer. 199.  
 — *bromius*: *cyclopsis* n. subsp.  
 Rothschild and Jordan.  
 540.  
 — *canopus*: *babberensis* n.  
 subsp. Fruhstorfer. 208.  
 — *chaon*: *chaonulus* n. subsp.  
 Fruhstorfer. 227.  
 — *cypracafla*: *fernandus* n.  
 subsp. Fruhstorfer. 219.  
 — *dardanus*: *polytrophus* n.  
 subsp. Rothschild and  
 Jordan. 540.  
 — *demoleus*: *annamiticus*.  
 Fruhstorfer. 199.  
 — *epycides*: *curiatus* n. subsp.  
 Fruhstorfer. 202.

**PAPILIO** [Papilionidae].  
 — *euchenor*: *cuchenides* n.  
 subsp. Fruhstorfer. 210.  
 — *lason* n. subsp.  
 Fruhstorfer. 210.  
 — *forbesi*: *goetheanus* n. nom.  
 Fruhstorfer. 208.  
 — *gyas*: *lacinus* n. sub-p.  
 Fruhstorfer. 202.  
 — *illyris*: *flacisparsus* n.  
 subsp. Fruhstorfer. 219.  
 — *jason*: *postienus* n. subsp.  
 Fruhstorfer. 227.  
 — *jordani*. Fruhstorfer. 227.  
 — *krishna*: *charlesi* n. subsp.  
 Fruhstorfer. 227.  
 — *macareus*: *lioneli* n. nom.  
 Fruhstorfer. 227.  
 — *macfarlanei*: *cestinus* n.  
 subsp. Fruhstorfer. 235.  
 — *meagrus*: *megapenthes* n.  
 subsp. Fruhstorfer. 205.  
 — *memnon*: *agenor* var. *vinius*  
 n. nom. Fruhstorfer. 208.  
 — *heronus*. Fruh-  
 storfer. 227.  
 — *memnoides* n.  
 subsp. Fruhstorfer. 208.  
 — *subclathrator* n.  
 subsp. Fruhstorfer. 208.  
 — *mikado* var. *albidus* n. var.  
 Wileman. 718.  
 — *noctis*: *solokanus* n. subsp.  
 Fruhstorfer. 208.  
 — *phorcas*: *nyikanus* n. subsp.  
 Rothschild and Jordan.  
 542.  
 — *polytes*: *polycles* n. subsp.  
 Fruhstorfer. 208.  
 — *polycritos* n. subsp.  
 Fruhstorfer. 202.  
 — *polyzenes* var. *currifascia*  
 n. var. Skinner. 605.  
 — *princeps*. Weymer. 714.  
 — *rhesus*: *rhesulus* n. subsp.  
 Fruhstorfer. 205.  
 — *rosenbergi*. Druce. 129.  
 — *slateri*: *ab. persodes* n.  
 subsp. Fruhstorfer. 225.  
 — *sosia*. Rothschild and  
 Jordan. 542.  
 — *ulysses*: *agasophus* n. subsp.  
 Fruhstorfer. 210.  
 — *kallinikos*. Fruh-  
 storfer. 210.  
 — *marius*. Fruh-  
 storfer. 210.  
 — *telephanes* n. sub-  
 sp. Fruhstorfer. 205.

## PAPILIO [Papilionidae].

- *zenocles*: *kephisos* n. subsp.  
Fruhstorfer. 202, 223.  
— *lindos* n. subsp.  
Fruhstorfer. 202.  
— *zenocides* n. subsp.  
Fruhstorfer. 227.

**Paradiastema** n. gen. [Notodontidae].  
Aurivillius. 8.  
— *nigrocincta*. Aurivillius. 8.

## PARADROMULIA [Geometridae].

- *anomala*: *albigrisea* n. ab.  
Warren. 702.  
— *albimaculata* n.  
ab. Warren. 702.  
— *complicata* n. ab.  
Warren. 702.  
— *lacteata* n. ab.  
Warren. 702.  
— *nigrosicta* n. ab.  
Warren. 702.  
— *uniformis* n. ab.  
Warren. 702.  
— *variegata* n. ab.  
Warren. 702.  
— *fuscimedia*. Warren. 702.  
— *purpurea*. Warren. 702.

## PARALCIS [Geometridae].

- *laeta*. Warren. 702.  
— *lithina*. Warren. 702.  
— *ocellata*. Warren. 702.  
— *pallidistriga*. Warren. 702.  
— *umbrilinea*. Warren. 702.

**Paralechia** n. gen. [Tineidae]. Busck.  
63.

## PARALLAGE [Geometridae].

- *intricata*. Dognin. 121.

**Paramelora** n. gen. [Geometridae].  
Lower. 400.

- *zophodesma*. Lower. 400.

## PARANTICA [Nymphalidae].

- *cleona*: *euleona* n. subsp.  
Fruhstorfer. 221.

## PARASICCIA [Arctiidae].

- *perirrorata*. Hampson. 299.

## PARATOSTEGA [Geometridae].

- *pallidicosta*. Warren. 700.

**Paraxestia** n. gen. [Noctuidae]. Hampson. 300.

## PARECLIPTIS [Geometridae].

- *ansorgeata*. Warren. 701.

## PARHESTINA [Nymphalidae].

- *mena*: *subdecorata* n. subsp.  
Fruhstorfer. 213.

## PARNASSIUS [Papilionidae].

- *acco*: *acconius* n. subsp.  
Fruhstorfer. 220.  
— *acconus*. Fruhstorfer. 214.  
— *apollonius*: *daubi* n. subsp.  
Fruhstorfer. 236.  
— *clodius* var. *altaurus* n. var.  
Dyar. 151.  
— *epaphus*: *huwei* n. subsp.  
Fruhstorfer. 219.  
— *gylippes*. Fruhstorfer. 214.  
— *imperator*: *augustus* n. subsp.  
Fruhstorfer. 240.  
— *supremus* n. subsp.  
Fruhstorfer. 236.

**Parum** n. gen. [Sphingidae]. Rothschild and Jordan. 539A.

## PATHYSA [Papilionidae].

- *naira*. Moore. 427.  
— *pernomius*. Moore. 427.

## PATISSA [Pyralidae].

- *fulvidorsalis*. Hampson. 302.  
— *heldi*. Hering. 310.

**Pauresthes** n. gen. [Geometridae].  
Warren. 702.

- *caniola*. Warren. 702.  
— *signifera*. Warren. 702.

## PELLICIA [Hesperiidae].

- *pericles*. Mabille. 406.

**Pemba** n. gen. [Sphingidae]. Rothschild and Jordan. 539A.

- *distanti*. Rothschild and Jordan. 539A.

## PENTHEMA [Nymphalidae].

- *binghami*: *annamitica* n. subsp. Fruhstorfer. 199.

## PENTILA [Lycenidae].

- *clarensis*. Neave. 431.  
— *multipunctata*. Lathy. 378.  
— *radiata*. Lathy. 378.  
— *septistrigata*. Bethune-Baker. 36.

## PERICALLIA [Arctiidae].

- *accensa*. Swinhoe. 656.

## PERIGONIA [Sphingidae].

- *grisea*. Rothschild and Jordan. 539A.  
— *pallida*. Rothschild and Jordan. 539A.

## PERIGONICA [Noctuidae].

- *tertia*. Dyar. 151.

## PERIGRANNE [Geometridae].

- *immaculata*. Dognin. 121.  
— *marginata*. Dognin. 121.

- HISPENA** [Noctuidae].  
 ——— *melasticta*. Lower. 399.  
 ——— *rhynchophora*. Lower. 399.
- HOLOCERA** [Cossidae].  
 ——— *pancratita*. Weymer. 713.
- HOLORISTA** [Geometridae].  
 ——— *seminigra*. Warren. 702.
- HOLOSCOLIA** [Tineidae].  
 ——— *berytella*. Rebel. 500.  
 ——— *majorella*. Rebel. 500.
- HOMOKOSOMA** [Pyralidae].  
 ——— *elongellum*. Dyar. 149.  
 ——— *melanosticta*. Lower. 399.  
 ——— *nigrimedialis*. Hampson. 302.
- HOMOPRYALIS** [Noctuidae].  
 ——— *monodia*. Dyar. 151.
- Hoplocnema** n. gen. [Sphingidae].  
 Rothschild and Jordan. 539A.  
 ——— *melanoleuca*. Rothschild and Jordan. 539A.
- Hoplistopus** n. gen. [Sphingidae].  
 Rothschild and Jordan. 539A.  
 ——— *butti*. Rothschild and Jordan. 539A.  
 ——— *penricei*. Rothschild and Jordan. 539A.
- HOPLITICA** [Tineidae].  
 ——— *rhodopepla*. Lower. 401.
- Hoplojana** n. gen. [Eupterotidae].  
 Aurivillius. 8.  
 ——— *indecisa*. Aurivillius. 8.
- Hulstina** n. gen. [Geometridae]. Dyar. 147.  
 ——— *terlineata* n. sp. Dyar. 147.
- HUPHINA** [Pieridae].  
 ——— *nama*: *eunama* n. subsp. Fruhstorfer. 197.  
 ——— *pitys*: *aelia* n. subsp. Fruhstorfer. 197.  
 ——— *babberica* n. subsp. Fruhstorfer. 197.  
 ——— *bolana* n. subsp. Fruhstorfer. 197.  
 ——— *lucia* n. subsp. Fruhstorfer. 197.  
 ——— *mithra* n. subsp. Fruhstorfer. 197, 229.  
 ——— *pityna* n. subsp. Fruhstorfer. 197.
- HYALEUCEREA** [Syntomidae].  
 ——— *picticeps*. Hampson. 299.
- HYANTIS** [Nymphalidae].  
 ——— *lageni*. Röber. 531.
- HYBERNIA** [Geometridae].  
 ——— *erectaria*. Püngeler. 494.
- HYBLAEA** [Noctuidae].  
 ——— *vasa*. Swinhoe. 655.
- HYDRAECIA** [Noctuidae].  
 ——— *cauta*. Schaus. 557.  
 ——— *peza*. Schaus. 557.
- HYDRELIA** [Geometridae].  
 ——— *aurantiaca*. Hampson. 302.  
 ——— *rubraria*. Hampson. 302.
- HYDRIAS** [Lasiocampidae].  
 ——— *cinerea*. Dognin. 121.  
 ——— *simia*. Dognin. 121.  
 ——— *subguttularis*. Dognin. 121.
- HYDROTHAUMA** [Zygaenidae].  
 ——— *ada*: *javana* n. subsp. Rothschild and Jordan. 541.  
 ——— *jucunda* n. subsp. Rothschild and Jordan. 541.
- HYLESIA** [Saturniidae].  
 ——— *margarita*. Dognin. 121.  
 ——— *praeda*. Dognin. 121.
- HYLOICUS** [Sphingidae].  
 ——— *aurigutta*. Rothschild and Jordan. 539A.  
 ——— *caligineus*: *sinicus* n. subsp. Rothschild and Jordan. 539A.  
 ——— *chersis*: *mexicanus* n. subsp. Rothschild and Jordan. 539A.  
 ——— *pallescens* n. subsp. Rothschild and Jordan. 539A.  
 ——— *crassistriga*. Rothschild and Jordan. 539A.  
 ——— *geminus*. Rothschild and Jordan. 539A.  
 ——— *gordius*: *oslari* n. subsp. Rothschild and Jordan. 539A.  
 ——— *istar*. Rothschild and Jordan. 539A.  
 ——— *oberthueri*. Rothschild and Jordan. 539A.  
 ——— *pinastri*: *morio* n. subsp. Rothschild and Jordan. 539A.  
 ——— *praelongus*. Rothschild and Jordan. 539A.
- HYMENITIS** [Nymphalidae].  
 ——— *ochretis*. Haensch. 294.  
 ——— *umbrosa*. Haensch. 294.

- HYPANARTIA** [Nymphalidae].  
 ——— *splendida*. Rothschild. 539.
- HYPENA** [Noctuidae].  
 ——— *cremona*. Swinhoe. 655.  
 ——— *gypsoipila*. Turner. 677.
- HYPERPHYRA** [Geometridae].  
 ——— *plenimargo*. Warren. 702.
- Hypercydas** n. gen. [Uraniidae]. Turner. 677.  
 ——— *calliloma*. Turner. 677.
- Hyperdirphia** n. gen. [Ceratocampidae]. Packard. 457.
- HYPERLOPHA** [Noctuidae].  
 ——— *amicta*. Turner. 677.
- HYPHILARIA** [Erycinidae].  
 ——— *orsedice*. Godman. 280.
- HYPNOBLORA** [Geometridae].  
 ——— *popayanaria*. Dognin. 121.
- HYPOCHROMA** [Geometridae].  
 ——— *modesta*. Warren. 702.  
 ——— *saturataria*: *perviridata* n. ab. Warren. 702.  
 ——— *subrubella*. Warren. 702.
- HYPOCYSTA** [Nymphalidae].  
 ——— *leucomelas*. Rothschild. 539.
- HYPOGRAPHA** [Geometridae].  
 ——— *cyanorrhoea*. Lower. 400.  
 ——— *dilutaria*. Warren. 700.
- HYPOLERIA** [Nymphalidae].  
 ——— *karschi*. Haensch. 294.  
 ——— *varlata*. Haensch. 294.
- HYPOLIMNAS** [Nymphalidae].  
 ——— *alimena*: *afra* n. subsp. Fruhstorfer. 197.  
 ——— *lamina* n. subsp. Fruhstorfer. 197.  
 ——— *obsolescens* n. subsp. Fruhstorfer. 197.  
 ——— *saturnia* n. subsp. Fruhstorfer. 197.  
 ——— *antelope*: *mela* n. subsp. Fruhstorfer. 197.  
 ——— *aurifascia*. Mengel. 417.  
 ——— *deois*: *divina* n. subsp. Fruhstorfer. 217.  
 ——— *salmacis*: *platydema* n. subsp. Rothschild and Jordan. 543.
- Hyporion** n. gen. [Erycinidae]. Röber. 531.
- HYPOSCADA** [Nymphalidae].  
 ——— *ida*. Haensch. 294.
- HYPSIPYLA** [Pyrilidae].  
 ——— *elachistalis*. Hampson. 302.  
 ——— *pearella*. Hampson. 302.  
 ——— *rotundyrez*. Hampson. 302.
- HYPSOIDES** [Eupterotidae].  
 ——— *ambriensis*. Poujade. 477.
- HYPSOLOPHUS** [Tineidae].  
 ——— *helianthem.* Walsingham. 694.
- Hyppomopa** n. gen. [Geometridae]. Lower. 400.  
 ——— *delotis*. Lower. 400.
- Idaltma** n. gen. [Noctuidae]. Turner. 677.
- IDALUS** [Arctiidae].  
 ——— *veneta*. Dognin. 121.
- IDEOPSIS** [Nymphalidae].  
 ——— *chloris*: *obiana* n. subsp. Fruhstorfer. 221.
- ILEMA** [Arctiidae].  
 ——— *melasonea*. Hampson. 299.
- ILLIBERIS** [Zygaenidae].  
 ——— *discoidalis*. Swinhoe. 655.
- ILLICE** [Arctiidae].  
 ——— *cryptopyra*. Hampson. 299.  
 ——— *endoxantha*. Hampson. 299.  
 ——— *flagrans*. Hampson. 299.  
 ——— *persimilis*. Hampson. 299.
- IMMETALIA** [Agaristidae].  
 ——— *diversa*. Rothschild and Jordan. 541.  
 ——— *meeki*: *keiana* n. subsp. Rothschild and Jordan. 541.
- Indiana** n. gen. [Sphingidae]. Tutt. 683.
- INGENA** [Geometridae].  
 ——— *lucifera*. Warren. 702.
- IODIS** [Geometridae].  
 ——— *costipicta*. Warren. 702.  
 ——— *fragilis*. Warren. 702.
- IPHIERGA** [Tineidae].  
 ——— *cryptilopha*. Lower. 399.  
 ——— *polysoma*. Lower. 401.
- Iridobapta** n. gen. [Geometridae]. Warren. 699.  
 ——— *huntei*. Warren. 699.
- ISAMIA** [Nymphalidae].  
 ——— *aegyptus*: *iduna* n. subsp. Fruhstorfer. 197.  
 ——— *atossa*: *lombogiana* n. subsp. Fruhstorfer. 197.

## POLYPTYCHUS [Sphingidae].

- *fulgurans*. Rothschild and Jordan. 539A.  
 — *fumosus*. Rothschild and Jordan. 539A.  
 — *grayi*: *assimilis*. n. subsp. Rothschild and Jordan. 539A.  
 — *hollandi*. Rothschild and Jordan. 539A.  
 — *marshalli*. Rothschild and Jordan. 539A.  
 — *nigriplaga*. Rothschild and Jordan. 539A.  
 — *orthographus*. Rothschild and Jordan. 539A.  
 — *pygarga*: *convexus* n. subsp. Rothschild and Jordan. 539A.  
 — *trilineatus*: *chinensis* n. subsp. Rothschild and Jordan. 539A.  
 — *luteatus* n. subsp. Rothschild and Jordan. 539A.  
 — *philippinensis* n. subsp. Rothschild and Jordan. 539A.  
 — *undatus* n. subsp. Rothschild and Jordan. 539A.

## POROSAGROTIS [Noctuidae].

- *brachystria*. Hampson. 300.  
 — *caffa*. Hampson. 300.

## PORTHESIA [Lymantridae].

- *fultonigra*. Swinhoe. 654.  
 — *nigrifinis*. Swinhoe. 654.  
 — *rebeli*. Haberhauer. 292.

**Prædora** n. gen. [Sphingidae]. Rothschild and Jordan. 539A.

- *leucophaea*. Rothschild and Jordan. 539A.  
 — *marshalli*. Rothschild and Jordan. 539A.  
 — *plagiata*. Rothschild and Jordan. 539A.

## PRASINOCYMA [Geometridae].

- *dohertyi*. Warren. 701.

## PRASINOXENA [Thyrididae].

- *viridissima*. Swinhoe. 657.

## PRECIS [Nymphalidae].

- *adulatrix*. Fruhstorfer. 208.  
 — *ceryne*: *cervana* n. subsp. Rothschild and Jordan. 543.  
 — *nobilitata*. Thurnau. 668.

## PRECIS [Nymphalidae].

- *terea*: *fumata* n. subsp. Rothschild and Jordan. 543.  
 — *westermanni*: *suffusa* n. subsp. Rothschild and Jordan. 543.

**Prinasura** n. gen. [Arctiidae]. Hampson. 299.

- *pyrrhopsamma*. Hampson. 299.

## PRIONERIS [Pieridae].

- *autothisbe*: *orientalis* n. subsp. Fruhstorfer. 231.  
 — *clemanthe*: *themanana* n. subsp. Fruhstorfer. 231.  
 — *thestylis*: *formosana* n. subsp. Fruhstorfer. 197.

## PRISMOSTICTA [Eupterotidae].

- *tiretta*. Swinhoe. 657.

## PROBLEPSIDIS [Drepanidae].

- *ostia*. Swinhoe. 657.

## PROBLEPSIS [Geometridae].

- *transposita*. Warren. 702.

## PROCHOERODES [Geometridae].

- *flezimargo*. Dognin. 121.

## PROCOMETIS [Tineidae].

- *periscia*. Lower. 400.  
 — *tetraspora*. Lower. 400.

## PROROCOPIIS [Noctuidae].

- *adelopis*. Lower. 399.  
 — *eucapha*. Lower. 399.  
 — *leucocrassa*. Lower. 399.  
 — *stenota*. Lower. 399.

## PROROCORYS [Geometridae].

- *admirabilis*. Warren. 700.

## PROSEBINUS [Sphingidae].

- *juanita*: *oslari* n. subsp. Rothschild and Jordan. 539A.

**Prostenodes** n. gen. [Geometridae]. Warren. 702.

- *comosa*. Warren. 702.

**Prostomeus** n. gen. [Tineidae]. Busck. 63.

- *brunneus*. Busck. 63.

**Protagrotis** n. gen. [Noctuidae]. Hampson. 300.

- Protaleuron** n. gen. [Sphingidae]. Rothschild and Jordan. 539A.  
 — *rhodogaster*. Rothschild and Jordan. 539A.

- HYPANARTIA** [Nymphalidae].  
 ——— *splendida*. Rothschild. 539.
- HYPERA** [Noctuidae].  
 ——— *cremona*. Swinhoe. 655.  
 ——— *gyrospila*. Turner. 677.
- HYPERHYRA** [Geometridae].  
 ——— *plenimargo*. Warren. 702.
- Hypercydas** n. gen. [Uraniidae]. Turner. 677.  
 ——— *calliloma*. Turner. 677.
- Hyperdirphia** n. gen. [Ceratocampidae]. Packard. 457.
- HYPERLOPHA** [Noctuidae].  
 ——— *amicta*. Turner. 677.
- HYPHILARIA** [Erycinidae].  
 ——— *orsedice*. Godman. 280.
- HYPNOCHLORA** [Geometridae].  
 ——— *popayanaria*. Dognin. 121.
- HYPOCHROMA** [Geometridae].  
 ——— *modesta*. Warren. 702.  
 ——— *saturataria*: *perviridata* n. ab. Warren. 702.  
 ——— *subrubella*. Warren. 702.
- HYPOCYSTA** [Nymphalidae].  
 ——— *leucomelas*. Rothschild. 539.
- HYPOGRAPHA** [Geometridae].  
 ——— *cyanorrhoea*. Lower. 400.  
 ——— *dilutaria*. Warren. 700.
- HYPOLERIA** [Nymphalidae].  
 ——— *karschi*. Haensch. 294.  
 ——— *varlata*. Haensch. 294.
- HYPOLIMNAS** [Nymphalidae].  
 ——— *alimena*: *afra* n. subsp. Fruhstorfer. 197.  
 ——— *lamina* n. subsp. Fruhstorfer. 197.  
 ——— *obsolescens* n. subsp. Fruhstorfer. 197.  
 ——— *saturnia* n. subsp. Fruhstorfer. 197.  
 ——— *antelope*: *mela* n. subsp. Fruhstorfer. 197.  
 ——— *aurifascia*. Mengel. 417.  
 ——— *deois*: *divina* n. subsp. Fruhstorfer. 217.  
 ——— *salmacis*: *platydema* n. subsp. Rothschild and Jordan. 543.
- Hyporion** n. gen. [Erycinidae]. Röber. 531.
- HYPOSCADA** [Nymphalidae].  
 ——— *ida*. Haensch. 294.
- HYPSIPYLA** [Pyrilidae].  
 ——— *elachistalis*. Hampson. 302.  
 ——— *pearcella*. Hampson. 302.  
 ——— *rotundyrez*. Hampson. 302.
- HYPSOIDES** [Eupterotidae].  
 ——— *ambriensis*. Poujade. 477.
- HYPSOLOPHUS** [Tineidae].  
 ——— *helianthemii*. Walsingham. 694.
- Hyppymopa** n. gen. [Geometridae]. Lower. 400.  
 ——— *delotis*. Lower. 400.
- Idallima** n. gen. [Noctuidae]. Turner. 677.
- IDALUS** [Arctiidae].  
 ——— *veneta*. Dognin. 121.
- IDEOPSIS** [Nymphalidae].  
 ——— *chloris*: *obiana* n. subsp. Fruhstorfer. 221.
- ILEMA** [Arctiidae].  
 ——— *melasonea*. Hampson. 299.
- ILLIBERIS** [Zygaenidae].  
 ——— *discoidalis*. Swinhoe. 655.
- ILLICE** [Arctiidae].  
 ——— *cryptopyra*. Hampson. 299.  
 ——— *endoxantha*. Hampson. 299.  
 ——— *flagrans*. Hampson. 299.  
 ——— *persimilis*. Hampson. 299.
- IMMETALIA** [Agaristidae].  
 ——— *diversa*. Rothschild and Jordan. 541.  
 ——— *meeki*: *keiana* n. subsp. Rothschild and Jordan. 541.
- Indiana** n. gen. [Sphingidae]. Tutt. 683.
- INGENA** [Geometridae].  
 ——— *lucifera*. Warren. 702.
- IODIS** [Geometridae].  
 ——— *costipicta*. Warren. 702.  
 ——— *fragilis*. Warren. 702.
- IPHIERGA** [Tineidae].  
 ——— *crypeilopa*. Lower. 399.  
 ——— *polyzona*. Lower. 401.
- Iridobapta** n. gen. [Geometridae]. Warren. 699.  
 ——— *huntei*. Warren. 699.
- ISAMIA** [Nymphalidae].  
 ——— *aegyptus*: *iduna* n. subsp. Fruhstorfer. 197.  
 ——— *atossa*: *lombogiana* n. subsp. Fruhstorfer. 197.



- HISPENA** [Noctuidae].  
 ——— *melasticta*. Lower. 399.  
 ——— *rhynchophora*. Lower. 399.
- HOLOCERA** [Cossidae].  
 ——— *pancratia*. Weymer. 713.
- HOLORISTA** [Geometridae].  
 ——— *seminigra*. Warren. 702.
- HOLOSOLIA** [Tineidae].  
 ——— *berytella*. Rebel. 500.  
 ——— *majorella*. Rebel. 500.
- HOMOEOSOMA** [Pyralidae].  
 ——— *elongellum*. Dyar. 149.  
 ——— *melanosticta*. Lower. 399.  
 ——— *nigrimedialis*. Hampson. 302.
- HOMOPRYALIS** [Noctuidae].  
 ——— *monodia*. Dyar. 151.
- Hopllocnema** n. gen. [Sphingidae].  
 Rothschild and Jordan. 539A.  
 ——— *melanoleuca*. Rothschild and Jordan. 539A.
- Hoplistopus** n. gen. [Sphingidae].  
 Rothschild and Jordan. 539A.  
 ——— *butti*. Rothschild and Jordan. 539A.  
 ——— *penricei*. Rothschild and Jordan. 539A.
- HOPLITICA** [Tineidae].  
 ——— *rhodopepla*. Lower. 401.
- Hoplojana** n. gen. [Eupterotidae].  
 Aurivillius. 8.  
 ——— *indecisa*. Aurivillius. 8.
- Hulstina** n. gen. [Geometridae]. Dyar. 147.  
 ——— *terlineata* n. sp. Dyar. 147.
- HUPHINA** [Pieridae].  
 ——— *nama*: *eunama* n. subsp. Fruhstorfer. 197.  
 ——— *pitys*: *aelia* n. subsp. Fruhstorfer. 197.  
 ——— ——— *babberica* n. subsp. Fruhstorfer. 197.  
 ——— ——— *bolana* n. subsp. Fruhstorfer. 197.  
 ——— ——— *lucia* n. subsp. Fruhstorfer. 197.  
 ——— ——— *mithra* n. subsp. Fruhstorfer. 197, 229.  
 ——— ——— *pityna* n. subsp. Fruhstorfer. 197.
- A [Syntomidae].  
 ——— *icticeps*. Hampson. 299.
- HYANTIS** [Nymphalidae].  
 ——— *hageni*. Röber. 531.
- HYBERNIA** [Geometridae].  
 ——— *erectaria*. Püngeler. 494.
- HYBLAEA** [Noctuidae].  
 ——— *vasa*. Swinhoe. 655.
- HYDRAECIA** [Noctuidae].  
 ——— *cauta*. Schaus. 557.  
 ——— *peza*. Schaus. 557.
- HYDRELIA** [Geometridae].  
 ——— *aurantiaca*. Hampson. 302.  
 ——— *rubraria*. Hampson. 302.
- HYDRIAS** [Lasiocampidae].  
 ——— *cinerea*. Dognin. 121.  
 ——— *simia*. Dognin. 121.  
 ——— *subguttularis*. Dognin. 121.
- HYDROTHAUMA** [Zygaenidae].  
 ——— *ada*: *javana* n. subsp. Rothschild and Jordan. 541.  
 ——— ——— *jucunda* n. subsp. Rothschild and Jordan. 541.
- HYLESIA** [Saturniidae].  
 ——— *margarita*. Dognin. 121.  
 ——— *praeda*. Dognin. 121.
- HYLOICUS** [Sphingidae].  
 ——— *aurigutta*. Rothschild and Jordan. 539A.  
 ——— *caliginus*: *sinicus* n. subsp. Rothschild and Jordan. 539A.  
 ——— *chersis*: *mexicanus* n. subsp. Rothschild and Jordan. 539A.  
 ——— ——— *pallascens* n. subsp. Rothschild and Jordan. 539A.  
 ——— *crasseistriga*. Rothschild and Jordan. 539A.  
 ——— *geminus*. Rothschild and Jordan. 539A.  
 ——— *gordius*: *oulari* n. subsp. Rothschild and Jordan. 539A.  
 ——— *istar*. Rothschild and Jordan. 539A.  
 ——— *oberthueri*. Rothschild and Jordan. 539A.  
 ——— *pinastri*: *morio* n. subsp. Rothschild and Jordan. 539A.  
 ——— *praelongus*. Rothschild and Jordan. 539A.
- HYMENTIS** [Nymphalidae].  
 ——— *ochretis*. Haensch. 294.  
 ——— *umbrosa*. Haensch. 294.

- HYBANARTIA** [Nymphalidae].  
 ----- *splendida*. Rothschild. 539.
- HYPENA** [Noctuidae].  
 ----- *cremona*. Swinhoe. 655.  
 ----- *gypsospila*. Turner. 677.
- HYPERPHYRA** [Geometridae].  
 ----- *planimargo*. Warren. 702.
- Hypercydas** n. gen. [Uraniidae]. Turner. 677.  
 ----- *calliloma*. Turner. 677.
- Hyperdirphia** n. gen. [Ceratocampidae]. Packard. 457.
- HYPERLOPHA** [Noctuidae].  
 ----- *amicta*. Turner. 677.
- HYPHILARIA** [Erycinidae].  
 ----- *orsedice*. Godman. 280.
- HYPNOCHLORA** [Geometridae].  
 ----- *popayanaria*. Dognin. 121.
- HYPOCHROMA** [Geometridae].  
 ----- *modesta*. Warren. 702.  
 ----- *saturataria*: *perviridata* n. ab. Warren. 702.  
 ----- *subrubella*. Warren. 702.
- HYPOCYSTA** [Nymphalidae].  
 ----- *leucomelas*. Rothschild. 539.
- HYPOGRAPHA** [Geometridae].  
 ----- *cyanorrhoea*. Lower. 400.  
 ----- *dilutaria*. Warren. 700.
- HYPOLERIA** [Nymphalidae].  
 ----- *karschi*. Haensch. 294.  
 ----- *varlata*. Haensch. 294.
- HYPOLIMNAS** [Nymphalidae].  
 ----- *alimena*: *afra* n. subsp. Fruhstorfer. 197.  
 ----- *lamina* n. subsp. Fruhstorfer. 197.  
 ----- *obsolescens* n. subsp. Fruhstorfer. 197.  
 ----- *saturnia* n. subsp. Fruhstorfer. 197.  
 ----- *antelope*: *mela* n. subsp. Fruhstorfer. 197.  
 ----- *aurifascia*. Mengel. 417.  
 ----- *deois*: *divina* n. subsp. Fruhstorfer. 217.  
 ----- *salmacis*: *platydema* n. subsp. Rothschild and Jordan. 543.
- Hyperion** n. gen. [Erycinidae]. Röber. 531.
- HYPOSCADA** [Nymphalidae].  
 ----- *ida*. Haensch. 294.
- HYPSIPYLA** [Pyrilidae].  
 ----- *elachistalis*. Hampson. 302.  
 ----- *pearrella*. Hampson. 302.  
 ----- *rotundyrex*. Hampson. 302.
- HYPSOIDES** [Eupterotidae].  
 ----- *ambriensis*. Poujade. 477.
- HYPSOLOPHUS** [Tineidae].  
 ----- *helianthemis*. Walsingham. 694.
- Hypycnopa** n. gen. [Geometridae]. Lower. 400.  
 ----- *delotis*. Lower. 400.
- Idalima** n. gen. [Noctuidae]. Turner. 677.
- IDALUS** [Arctiidae].  
 ----- *veneta*. Dognin. 121.
- IDEOPSIS** [Nymphalidae].  
 ----- *chloris*: *obiana* n. subsp. Fruhstorfer. 221.
- ILEMA** [Arctiidae].  
 ----- *melasonea*. Hampson. 299.
- ILLIBERIS** [Zygaenidae].  
 ----- *discoidalis*. Swinhoe. 655.
- ILLICE** [Arctiidae].  
 ----- *cryptopyra*. Hampson. 299.  
 ----- *endoxantha*. Hampson. 299.  
 ----- *flagrans*. Hampson. 299.  
 ----- *persimilis*. Hampson. 299.
- IMMETALIA** [Agaristidae].  
 ----- *diversa*. Rothschild and Jordan. 541.  
 ----- *mekki*: *keiana* n. subsp. Rothschild and Jordan. 541.
- Indiana** n. gen. [Sphingidae]. Tutt. 683.
- INGENA** [Geometridae].  
 ----- *lucifera*. Warren. 702.
- IODIS** [Geometridae].  
 ----- *costipicta*. Warren. 702.  
 ----- *fragilis*. Warren. 702.
- IPHIERGA** [Tineidae].  
 ----- *cryptilopha*. Lower. 399.  
 ----- *polyzona*. Lower. 401.
- Iridobapta** n. gen. [Geometridae]. Warren. 699.  
 ----- *huntei*. Warren. 699.
- ISAMIA** [Nymphalidae].  
 ----- *aegyptus*: *iduna* n. subsp. Fruhstorfer. 197.  
 ----- *atossa*: *lombogiana* n. subsp. Fruhstorfer. 197.

- HISPENA** [Noctuidae].  
 ——— *melasticta*. Lower. 399.  
 ——— *rhynchophora*. Lower. 399.

- HOLOCERA** [Cossidae].  
 ——— *pancratia*. Weyner. 713.

- HOLONISTA** [Geometridae].  
 ——— *seminigra*. Warren. 702.

- HOLOSOLIA** [Tineidae].  
 ——— *berytella*. Rebel. 500.  
 ——— *majorella*. Rebel. 500.

- HOMOEOSOMA** [Pyralidae].  
 ——— *elongellum*. Dyar. 149.  
 ——— *melanosticta*. Lower. 399.  
 ——— *nigrimedialis*. Hampson. 302.

- HOMOPRYALIS** [Noctuidae].  
 ——— *monodia*. Dyar. 151.

- Hoplocnema** n. gen. [Sphingidae].  
 Rothschild and Jordan. 539A.  
 ——— *melanoleuca*. Rothschild and Jordan. 539A.

- Hoplistopus** n. gen. [Sphingidae].  
 Rothschild and Jordan. 539A.  
 ——— *butti*. Rothschild and Jordan. 539A.  
 ——— *penricei*. Rothschild and Jordan. 539A.

- HOPLITICA** [Tineidae].  
 ——— *rhodopepla*. Lower. 401.

- Hoplojana** n. gen. [Eupterotidae].  
 Aurivillius. 8.  
 ——— *indecisa*. Aurivillius. 8.

- Hulstina** n. gen. [Geometridae]. Dyar. 147.  
 ——— *terlineata* n. sp. Dyar. 147.

- HUPHINA** [Pieridae].  
 ——— *nama*: *eunama* n. subsp. Fruhstorfer. 197.  
 ——— *pitys*: *aelia* n. subsp. Fruhstorfer. 197.  
 ——— *babberica* n. subsp. Fruhstorfer. 197.  
 ——— *bolana* n. subsp. Fruhstorfer. 197.  
 ——— *lucia* n. subsp. Fruhstorfer. 197.  
 ——— *mühra* n. subsp. Fruhstorfer. 197, 229.  
 ——— *pityna* n. subsp. Fruhstorfer. 197.

- HYALOPHORA** [Syntomidae].  
 ——— *victiceps*. Hampson. 299.

- HYANTIS** [Nymphalidae].  
 ——— *hageni*. Röber. 531.

- HYBERNIA** [Geometridae].  
 ——— *erectaria*. Püngeler. 494.

- HYBLAZA** [Noctuidae].  
 ——— *vasa*. Swinhoe. 655.

- HYDRAECIA** [Noctuidae].  
 ——— *cauta*. Schaus. 557.  
 ——— *peza*. Schaus. 557.

- HYDRELIA** [Geometridae].  
 ——— *aurantiaca*. Hampson. 302.  
 ——— *rubraria*. Hampson. 302.

- HYDRIAS** [Lasiocampidae].  
 ——— *cinerea*. Dognin. 121.  
 ——— *simia*. Dognin. 121.  
 ——— *subguttularis*. Dognin. 121.

- HYDROTHAUMA** [Zygaenidae].  
 ——— *ada*: *javana* n. subsp. Rothschild and Jordan. 541.  
 ——— *jucunda* n. subsp. Rothschild and Jordan. 541.

- HYLESIA** [Saturniidae].  
 ——— *margarita*. Dognin. 121.  
 ——— *praeda*. Dognin. 121.

- HYLOICUS** [Sphingidae].  
 ——— *aurigutta*. Rothschild and Jordan. 539A.  
 ——— *caligineus*: *sinicus* n. subsp. Rothschild and Jordan. 539A.  
 ——— *cherais*: *mexicanus* n. subsp. Rothschild and Jordan. 539A.  
 ——— *pallescent* n. subsp. Rothschild and Jordan. 539A.  
 ——— *crassistriga*. Rothschild and Jordan. 539A.  
 ——— *geminus*. Rothschild and Jordan. 539A.  
 ——— *gorduis*: *oslari* n. subsp. Rothschild and Jordan. 539A.  
 ——— *istat*. Rothschild and Jordan. 539A.  
 ——— *oberthueri*. Rothschild and Jordan. 539A.  
 ——— *pinastri*: *morio* n. subsp. Rothschild and Jordan. 539A.  
 ——— *praelongus*. Rothschild and Jordan. 539A.

- HYMENITIS** [Nymphalidae].  
 ——— *ochretis*. Haensch. 294.  
 ——— *umbrosa*. Haensch. 294.

- HYFANARTIA** [Nymphalidae].  
 ----- *splendida*. Rothschild. 539.
- HYPERA** [Noctuidae].  
 ----- *cremona*. Swinhoe. 655.  
 ----- *gyneospila*. Turner. 677.
- HYPERPHYRA** [Geometridae].  
 ----- *plenimargo*. Warren. 702.
- Hypercydas** n. gen. [Uraniidae]. Turner. 677.  
 ----- *calliloma*. Turner. 677.
- Hyperdirphia** n. gen. [Ceratocampidae]. Packard. 457.
- HYPERLOPHA** [Noctuidae].  
 ----- *amicta*. Turner. 677.
- HYPHILARIA** [Erycinidae].  
 ----- *orsedice*. Godman. 280.
- HYPNOCHLORA** [Geometridae].  
 ----- *popayanaria*. Dognin. 121.
- HYPOCHROMA** [Geometridae].  
 ----- *modesta*. Warren. 702.  
 ----- *saturataria*: *perviridata* n. ab. Warren. 702.  
 ----- *subrubella*. Warren. 702.
- HYPOCYSTA** [Nymphalidae].  
 ----- *leucomelas*. Rothschild. 539.
- HYPOGRAPHA** [Geometridae].  
 ----- *cyanorrhoea*. Lower. 400.  
 ----- *dilutaria*. Warren. 700.
- HYPOLERIA** [Nymphalidae].  
 ----- *karschi*. Haensch. 294.  
 ----- *varlata*. Haensch. 294.
- HYPOLIMNAS** [Nymphalidae].  
 ----- *alimena*: *afra* n. subsp. Fruhstorfer. 197.  
 ----- *lamina* n. subsp. Fruhstorfer. 197.  
 ----- *obsolescens* n. subsp. Fruhstorfer. 197.  
 ----- *saturnia* n. subsp. Fruhstorfer. 197.  
 ----- *antelope*: *mela* n. subsp. Fruhstorfer. 197.  
 ----- *aurifascia*. Mengel. 417.  
 ----- *deois*: *divina* n. subsp. Fruhstorfer. 217.  
 ----- *salmacis*: *platydema* n. subsp. Rothschild and Jordan. 543.
- Hyperion** n. gen. [Erycinidae]. Röber. 531.
- HYPOSCADA** [Nymphalidae].  
 ----- *ida*. Haensch. 294.
- HYPSIPYLA** [Pyrilidae].  
 ----- *elachistalis*. Hampson. 302.  
 ----- *psarella*. Hampson. 302.  
 ----- *rotundyrex*. Hampson. 302.
- HYPSOIDES** [Eupterotidae].  
 ----- *ambriensis*. Poujade. 477.
- HYPSOLOPHUS** [Tineidae].  
 ----- *helianthem.* Walsingham. 694.
- Hyppynopa** n. gen. [Geometridae]. Lower. 400.  
 ----- *delotis*. Lower. 400.
- Idaltma** n. gen. [Noctuidae]. Turner. 677.
- IDALUS** [Arctiidae].  
 ----- *veneta*. Dognin. 121.
- IDEOPSIS** [Nymphalidae].  
 ----- *chloris*: *obiana* n. subsp. Fruhstorfer. 221.
- ILEMA** [Arctiidae].  
 ----- *melasonea*. Hampson. 299.
- ILLIBERIS** [Zygaenidae].  
 ----- *discoidalis*. Swinhoe. 655.
- ILLICE** [Arctiidae].  
 ----- *cryptopyra*. Hampson. 299.  
 ----- *endozantha*. Hampson. 299.  
 ----- *flagrans*. Hampson. 299.  
 ----- *persimilis*. Hampson. 299.
- IMMETALIA** [Agaristidae].  
 ----- *diversa*. Rothschild and Jordan. 541.  
 ----- *meeki*: *keiana* n. subsp. Rothschild and Jordan. 541.
- Indiana** n. gen. [Sphingidae]. Tutt. 683.
- INGENA** [Geometridae].  
 ----- *lucifera*. Warren. 702.
- IODIS** [Geometridae].  
 ----- *costipicta*. Warren. 702.  
 ----- *fragilis*. Warren. 702.
- IPHIERGA** [Tineidae].  
 ----- *cryptilopha*. Lower. 399.  
 ----- *polyzona*. Lower. 401.
- Iridobapta** n. gen. [Geometridae]. Warren. 699.  
 ----- *huntei*. Warren. 699.
- ISAMIA** [Nymphalidae].  
 ----- *aegyptus*: *iduna* n. subsp. Fruhstorfer. 197.  
 ----- *atossa*: *lombogiana* n. subsp. Fruhstorfer. 197.

- HISPENA** [Noctuidae].  
 ——— *melasticta*. Lower. 399.  
 ——— *rhynchophora*. Lower. 399.
- HOLOCEBA** [Cossidae].  
 ——— *pancratia*. Weymer. 713.
- HOLORISTA** [Geometridae].  
 ——— *seminigra*. Warren. 702.
- HOLOSOLIA** [Tineidae].  
 ——— *berytella*. Rebel. 500.  
 ——— *majorella*. Rebel. 500.
- HOMOEOMOMA** [Pyralidae].  
 ——— *elongellum*. Dyar. 149.  
 ——— *melanosticta*. Lower. 399.  
 ——— *nigrimedialis*. Hampson. 302.
- HOMOPRYALIS** [Noctuidae].  
 ——— *monodia*. Dyar. 151.
- Hopllocnema** n. gen. [Sphingidae].  
 Rothschild and Jordan. 539A.  
 ——— *melanoleuca*. Rothschild and Jordan. 539A.
- Hoplistopus** n. gen. [Sphingidae].  
 Rothschild and Jordan. 539A.  
 ——— *buiti*. Rothschild and Jordan. 539A.  
 ——— *penricei*. Rothschild and Jordan. 539A.
- HOPLITICA** [Tineidae].  
 ——— *rhodopepla*. Lower. 401.
- Hoplojana** n. gen. [Eupterotidae].  
 Aurivillius. 8.  
 ——— *indecisa*. Aurivillius. 8.
- Hulstina** n. gen. [Geometridae]. Dyar. 147.  
 ——— *terlineata* n. sp. Dyar. 147.
- HUPHINA** [Pieridae].  
 ——— *nama*: *eunama* n. subsp. Fruhstorfer. 197.  
 ——— *pitys*: *aelia* n. subsp. Fruhstorfer. 197.  
 ——— *babberica* n. subsp. Fruhstorfer. 197.  
 ——— *bolana* n. subsp. Fruhstorfer. 197.  
 ——— *lucia* n. subsp. Fruhstorfer. 197.  
 ——— *mithra* n. subsp. Fruhstorfer. 197, 229.  
 ——— *pityna* n. subsp. Fruhstorfer. 197.
- HYPHONOTHEA** [Syntomidae].  
 ——— *victiceps*. Hampson. 299.

- HYANTIS** [Nymphalidae].  
 ——— *lageni*. Röber. 531.
- HYBERNIA** [Geometridae].  
 ——— *erectaria*. Püngeler. 494.
- HYBLAEA** [Noctuidae].  
 ——— *vasa*. Swinhoe. 655.
- HYDRAECIA** [Noctuidae].  
 ——— *cauta*. Schaus. 557.  
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- HYDRELIA** [Geometridae].  
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 ——— *cinerea*. Dognin. 121.  
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 ——— *subguttularis*. Dognin. 121.
- HYDROTHAUMA** [Zygaenidae].  
 ——— *ada*: *javana* n. subsp. Rothschild and Jordan. 541.  
 ——— *jucunda* n. subsp. Rothschild and Jordan. 541.
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 ——— *margarita*. Dognin. 121.  
 ——— *praeda*. Dognin. 121.
- HYLOICUS** [Sphingidae].  
 ——— *aurigutta*. Rothschild and Jordan. 539A.  
 ——— *caliginus*: *sinicus* n. subsp. Rothschild and Jordan. 539A.  
 ——— *chersis*: *mexicanus* n. subsp. Rothschild and Jordan. 539A.  
 ——— *pallescens* n. subsp. Rothschild and Jordan. 539A.  
 ——— *crassistriga*. Rothschild and Jordan. 539A.  
 ——— *geminus*. Rothschild and Jordan. 539A.  
 ——— *gorduis*: *oslari* n. subsp. Rothschild and Jordan. 539A.  
 ——— *istar*. Rothschild and Jordan. 539A.  
 ——— *oberthueri*. Rothschild and Jordan. 539A.  
 ——— *pinastri*: *morio* n. subsp. Rothschild and Jordan. 539A.  
 ——— *praelongus*. Rothschild and Jordan. 539A.
- HYMENTIS** [Nymphalidae].  
 ——— *ochretis*. Haensch. 294.  
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- HYPANARTIA** [Nymphalidae].  
 ----- *splendida*. Rothschild. 539.
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 ----- *lamina* n. subsp. Fruhstorfer. 197.  
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 ----- *saturnia* n. subsp. Fruhstorfer. 197.  
 ----- *antelope*: *mela* n. subsp. Fruhstorfer. 197.  
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 ----- *endoxantha*. Hampson. 299.  
 ----- *flagrans*. Hampson. 299.  
 ----- *persimilis*. Hampson. 299.
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 ----- *fragilis*. Warren. 702.
- IPHIERGA** [Tineidae].  
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 ----- *polyzona*. Lower. 401.
- Iridobapta** n. gen. [Geometridae]. Warren. 699.  
 ----- *huntei*. Warren. 699.
- ISAMIA** [Nymphalidae].  
 ----- *aegyptus*: *iduna* n. subsp. Fruhstorfer. 197.  
 ----- *atossa*: *lombogiana* n. subsp. Fruhstorfer. 197.

## XANTHOPTERA [Noctuidae].

- *albiceris*. Turner. 677.  
 ——— *crocodeta*. Turner. 677.  
 ——— *euchrysa*. Lower. 399.  
 ——— *macrosema*. Lower. 399.

## XANTHORHOE [Geometridae].

- *hypogramma*. Lower. 400.  
 ——— *lucirivata*. Warren. 702.  
 ——— *occulta*. Philpott. 464.  
 ——— *oraria*. Philpott. 464.  
 ——— *roseopicta*. Warren. 700.

**Xenobiston** n. gen. [Geometridae].  
Warren and Rothschild. 703.

- *casta*. Warren and Rothschild. 703.

**Xenochlaena** n. gen. [Geometridae].  
Lower. 400.

## XENOPATHIA [Tineidae].

- *nivea*. Rebel. 500.

**Xenospora** n. gen. [Geometridae].  
Warren. 700.

## XYLECTES [Cossidae].

- *acoutucha*. Turner. 677.  
 ——— *coarctata*. Turner. 677.  
 ——— *doddi*. Rothschild. 538.  
 ——— *eluta*. Rothschild. 538.  
 ——— *molitor*. Rothschild. 538.  
 ——— *striga*. Rothschild. 538.

## XYLOMIGES [Noctuidae].

- *conspicillaris* var. *grisea*  
 n. var. Trautmann. 672.

## XYLOPHANES [Sphingidae].

- *amadis*: *goeldi* n. subsp.  
 Rothschild and Jordan. 539A.  
 ——— *hydrata*. Rothschild and Jordan. 539A.  
 ——— *juanita* n. nom. Rothschild and Jordan. 539A.  
 ——— *media*. Rothschild and Jordan. 539A.  
 ——— *porcus*: *continentalis* n. subsp. Rothschild and Jordan. 539A.  
 ——— *resta*. Rothschild and Jordan. 539A.  
 ——— *rhodina*. Rothschild and Jordan. 539A.  
 ——— *rhodochlora*. Rothschild and Jordan. 539A.  
 ——— *undata* n. nom. Rothschild and Jordan. 539A.

## XYLORECTA [Tineidae].

- *philonympha*. Lower. 401.

## XYSMATODOMA [Tineidae].

- *hemicalyptra*. Lower. 399.  
 ——— *holozona*. Lower. 399.  
 ——— *microzona*. Lower. 399.  
 ——— *retinochroa*. Lower. 399.

## YPSOLOPHUS [Tineidae].

- *lygropa*. Lower. 399.

## YRIAS [Noctuidae].

- *albiciliatus*. Smith. 621.  
 ——— *strigalis*. Smith. 621.

## ZAGIRA [Noctuidae].

- *zylonota*. Lower. 399.

## ZELLERIA [Tineidae].

- *celastrusella*. Kearfott. 354.

## ZETHES [Noctuidae].

- *blechrodes*. Turner. 677.  
 ——— *capatra*. Swinhoe. 657.  
 ——— *distorta*. Warren. 690.  
 ——— *loria*. Swinhoe. 657.  
 ——— *megaspila*. Warren. 699.  
 ——— *subapicata*. Warren. 699.  
 ——— *syndesma*. Lower. 399.

## ZYGAEANA [Zygaenidae].

- *rosinae*. Korb. 361.

## ZYGAEOPSIS [Arctiidae].

- *rubiana*. Rothschild. 539.

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## TITLES.

**Abonyi**, Sándor. Morphologische und physiologische Beschreibung des Darmkanals der Honigbiene (*Apis mellifica* L.). Allatt. Közlem., Budapest, 2, 1903, (137-168, mit Taf. XI-XIV). [4607 4631]. 1

**Alfken**, J. D. Zwei neue Bienen aus Japan. Zs. Hymenopter., Teschendorf, 3, 1903, (209-211). [4631]. 2

——— Zur Kenntnis einiger *Centris*-Arten. Zs. Hymenopter., Teschendorf, 3, 1903, (211-213). [4631]. 3

**André**, E. Fasc. II. Hymenoptera fam. *Mutillidae* in Wytsman, P. Genera Insectorum. Bruxelles, 1902, (77, av. 3 pls. hors texte). 20 fr. [4631]. 4

**André**, Ernest. Hyménoptères formidables récoltés au Japon, par M. Harmand. Bul. Muséum, Paris, 1903, (128). [4631 4627 ec]. 5

**André, Ernest.** Mutillides d'Afrique nouveaux ou imparfaitement connus. Zs. Hymenopter., Teschendorf, **3**, 1903, (81-88, 137-144, 232-239). [4631]. 6

——— Description d'une nouvelle espèce de *Dorymyrmex* et tableau dichotomique des ouvrières de ce genre. Zs. Hymenopter., Teschendorf, **3**, 1903, (364-365). [4631]. 7

**Ashmead, William H[arris].** A new *Pammegischia*. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **12**, 1901, (277-278). [4631]. 8

——— A new bumble bee [*Bombus titusi* n. sp.] from Colorado. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (50). [4627 gi 4631]. 9

——— *Ceropales* vs. *Ageniozenus* [not synonymous]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (318). [4631]. 10

——— *Provespa*, a new genus in the *Vespidæ*. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (182). [4631]. 11

——— Two new parasitic Hymenoptera [n. sp. in *Dryinus* and *Cheilonerius*]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (192-193). [4631]. 12

——— Some new genera in the Cynipoidea. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (221-223). [4631]. 13

——— *Myrmecosalius*, a new genus in the *Ceropalidae*. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (307-308). [4631]. 14

——— Classification of the pointed-tailed wasps or the super-family *Proctotrypoidea* II. [Families *Diapriidae* and *Ceraphronidae*]. New York, N.Y., J. Ent. Soc., **11**, 1903, (28-35). [4631]. 15

——— Classification of the pointed-tailed wasps, or the super-family *Proctotrypoidea*. III. [Family *Scelionidae*]. New York, N.Y., J. Ent. Soc., **11**, 1903, (86-99). [4631]. 16

——— Two new Hymenopterous parasites. [*Orgilus kearfotti* n. sp. and *Protopanteles recurvariae* n. sp.]. New York, N.Y., J. Ent. Soc., **11**, 1903, (144). [4631]. 17

——— Description of a new genus in the *Pireninae*, Family *Chalcididae*, (x 2-9053)

Order Hymenoptera. Calcutta, Ind. Mus. Notes, **5**, 1903, (61-62). [4631]. 18

**Bachmetjew, P.** Ein Versuch, die Frage über die Parthenogenese der Drohnen mittels der analytisch-statistischen Methode zu lösen. Allg. Zs. Ent., Neudamm, **8**, 1903, (37-44). [4611 4631 2423]. 19

**Baer, W.** Zur Apiden-Fauna der Kurischen Nehrung. Allg. Zs. Ent., Neudamm, **8**, 1903, (157-161). [4627 de]. 20

**Barker, E. E.** The bull-ants of Victoria [*Myrmecia forficata*, Fabr. and *M. sanguinea*, Smith.]. Vict. Nat., Melbourne, **20**, 1903, (105-111). [4619 4627 if 4631]. 21

**Barthélemy, U.** Une reine qui change de domicile. Rev. Internat. Apicult., Nyon, **24**, 1902, (197-198). [4619 4631]. 22

——— Moyen d'expulser les larves de males des rayons. Rev. Internat. Apicult., Nyon, **25**, 1903, (207-208). [4619 4631]. 23

**Benetti, V.** Ricerche biologiche sui Bombi. Mon. zool. ital., Firenze, **13**, 1902, (Supplemento), (38-40). [4611 4631]. 24

**Besaler, J. G.** Illustriertes Lehrbuch der Bienenzucht. 3. Aufl. Neu bearb. v. J. Elsässer. Stuttgart, Berlin, Leipzig (W. Kohlhammer), 1903, (VII + 304). 18 cm. 2 M. [4631]. 25

**Signell, G. C.** British oak galls. Falmouth, Rep. R. Cornwall Polyt. Soc., **1902**, (72-93). [4619 4631]. 26

**Bingham, C. T.** On the Hymenoptera collected by Mr. W. L. Distant in the Transvaal, South Africa, with descriptions of supposed new species. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (46-69). [4627 fg 4631]. 27

——— The fauna of British India, including Ceylon and Burma. Published under the authority of the Secretary of State for India in Council. Edited by W. T. Blanford. Hymenoptera, Vol. II. Ants and Cuckoo-wasps. London, 1903, (xix + 506, 1 pl., illustr.). 8vo. [Review]. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (190-191). [4627 ef 4631]. 28

——— Diagnoses of Aculeate Hymenoptera. Fascic. Malay. Zool., **2**, App., (iii-vii). [4627 eg 4631]. 29



**Bisschop van Tuinen, K.** Die Säge-  
werkzeuge der Cimbicini. (Holländisch)  
's Gravenhage, Tijdschr. Ent., **16**, [1903],  
(58-64, 3 Taf.). [4607 4631]. 30

**Bloesch, C.** Einige Notizen über  
Cynipiden und Chalcidier aus der Um-  
gebung von Laufenburg. Schaffhausen,  
Mitt. Schweiz. Entomol. Ges., **11**, 1903,  
(46-55). [4627 di 4619 4631]. 31

**Bouvier, E. L.** Quelques observations  
sur les insectes mellifères et leurs rap-  
ports avec les fleurs. Bul. Muséum,  
Paris, **1903**, (192-196); Naturaliste,  
Paris, (sér. 2), **25**, 1903, (147-148).  
[4619 4631]. 32

——— La vie des abeilles. Bul.  
Inst. psych. internat., Paris, **2**, 1902,  
(88-105). [4619 4631]. 33

**Bradley, J. Chester.** A new species of  
*Dysidopus* Kriechbaumer (Pimplinae).  
Philadelphia, Pa., Ent. News Acad.  
Nat. Sci., **13**, 1902, (307-308). [4631]. 34

——— [Note on *Smicra bimacu-  
lata* Strecker]. Philadelphia, Pa., Ent.  
News Acad. Nat. Sci., **14**, 1903, (26).  
[4631]. 35

——— *Agathobanchus aequatus*  
[redescribed]. Philadelphia, Pa., Ent.  
News Acad. Nat. Sci., **14**, 1903, (144-  
146, with fig. in text). [4631]. 36

**Brandicourt, Virgile.** Pucerons et  
fourmis. Nature, Paris, **30**, (2<sup>e</sup> semest.),  
1902, (202). [4631 4619 4031 4019]. 37

**Brauns, H.** Beiträge zur Kenntnis  
südafrikanischer Masariden. Zs. Hymeno-  
pter., Teschendorf, **2**, 1902, (181-185,  
275-282, 373-374); **3**, 1903, (65-73).  
[4631]. 38

——— *Epeolus militaris* Gerst.  
und *Epeolus friesei* m. Zs. Hymeno-  
pter., Teschendorf, **3**, 1903, (362-364).  
[4631]. 39

——— Ein neues Chrysiden-  
genus aus der *Panorpes*-Gruppe. Buda-  
pest, Ann. Hist.-Nat. Mus. Nat. Hung.,  
**1**, 1903, (460-461). [4631]. 40

**Brauns, J.** Ueber das Weibchen von  
*Dorylus (Rhognus) fimbriatus* Shuck.  
Zs. Hymenopter., Teschendorf, **3**, 1903,  
(394-398). [4631]. 41

**Brünnich.** Der Magen der Honig-  
biene. Schweiz. Bienenztg, Aarau, **25**,  
1902, (208-217, 10 figs.). [4611 4631]. 42

**Brünnich.** Der Eierstock der Bienen-  
königin. Schweiz. Bienenztg, Aarau,  
**25**, 1902, (417-420). [4615 4631]. 43

——— Der „Nestduft“ bei den  
Insekten, speciell bei den Bienen.  
Schweiz. Bienenztg, Aarau, **25**, 1902,  
(476-479). [4619]. 44

**Brues, Charles Thomas.** Descriptions  
of new ant-like and myrmecophilous  
Hymenoptera. Philadelphia, Pa., Acad.  
Nat. Sci., Trans. Amer. Ent. Soc., **29**,  
1903, (119-128, with pl.). [4631]. 45

——— On the sleeping habits of  
some aculeate Hymenoptera. New  
York, N.Y., J. Ent. Soc., **11**, 1903, (228-  
230). [4619 4631]. 46

——— Studies of Texan bees.  
Part I. Austin. Cont. Zool. Lab. Univ.  
Tex., No. **41**, in Philadelphia, Pa., Ent.  
News Acad. Nat. Sci., **14**, 1903, (79-85,  
with figs. in text). [4627 gi 4631]. 47

——— v. Melander, A. L.

**Bruner, Lawrence.** Some notes on  
the bee genus *Andrena*. [With table of  
North American species.] Philadelphia,  
Pa., Acad. Nat. Sci., Trans. Amer. Ent.  
Soc., **29**, 1903, (239-258). [4627 g  
4631]. 48

**Bugnion, E.** Tube digestif de *Xylo-  
copa*. Arch. Sci. Phys., Genève, (sér. 4),  
**15**, 1903, (92-93). [4607 4631]. 49

——— Recherches histologiques  
sur le tube digestif du *Xylocopa molacca*.  
Aarau, Verh. Schweiz. Natf. Ges., **85**,  
1902, (76); Arch. Sci. Phys., Genève,  
(sér. 4), **14**, 1902, (531-534). [4607  
4631]. 50

**Bulman, G. W.** The constancy of the  
bee. Zoologist, London, (Ser. 4), **6**,  
1902, (220-222). [4619 4631]. 51

**Burfeind, H.** Aus dem Leben der  
Honigbiene. [Eiablage d. Königin.]  
Aus d. Heimat, Bremerhaven, **1901-02**,  
1903, (38). [4631 4619]. 52

**Buttel-Reepen, von.** Aus dem Leben  
der Honigbiene. Allg. Zs. Ent., Neu-  
damm, **8**, 1903, (453-457). [4619  
4631]. 53

——— Ueber die Bedeutung der  
Stirnaugen und der Seitenaugen bei der  
Honigbiene. Bienenwirtsch. Centralbl.,  
Hannover, **39**, 1903, (322-325). [4611  
4631]. 54

**Buttel-Reepen**, von. Die Parthenogenesis bei der Honigbiene. Natur u. Schule, Leipzig, 1, 1902, (230-239). [4611 4631]. 55

Die stammesgeschichtliche Entstehung des Bienenstaates sowie Beiträge zur Lebensweise der solitären u. sozialen Bienen (Hummeln, Meliponinen, etc.). Vortrag . . . Stark erweitert, mit Anm. u. Zusätzen hrsg. Leipzig (G. Thieme), 1903, (XII + 138). 23 cm. 2,40 M. [4619 4623]. 56

**Cameron**, P. Descriptions of nineteen new species of *Laridae*, *Odynerus* and *Apidae* from Barrackpore. London, Trans. Ent. Soc., 1903, (117-132). [4627 ef 4631]. 57

Descriptions of twelve new genera and species of *Ichneumonidae* (Heresiarchini and Amblypygi) and three species of *Ampulex* from the Khasia hills, India. London, Trans. Ent. Soc., 1903, (219-238). [4627 ef 4631]. 58

On some new genera and species of parasitic and fossorial Hymenoptera from the Khasia hills, Assam. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (173-185, 313-331). [4627 ef 4631]. 59

On some new genera and species of parasitic Hymenoptera from the Khasia hills, Assam. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (266-272, 363-371, 565-583). [4627 ef 4631]. 60

Hymenoptera orientalia, or contributions to the knowledge of the Hymenoptera of the Oriental zoological region. The Hymenoptera of the Khasia hills. Part 2, Section 2. Manchester, Mem. Lit. Phil. Soc., 47, No. 14, 1903, (1-50). [4627 ef 4631]. 61

Some new genera and species of Hymenoptera. Entomologist, London, 36, 1903, (9). [4603 4631]. 62

On the parasitic Hymenoptera and *Tenthredinidae* collected by Mr. Edward Whympers on the "Great Andes of the Equator." Entomologist, London, 36, 1903, (95-97, 120-123, 158-161). [4627 h 4631]. 63

Description of a new species of *Ammoplanus* (Hymenoptera) from South Africa. Entomologist, London, 36, 1903, (178). [4627 fg 4631]. 64

(N 2-9053)

**Cameron**, P. Descriptions of ten new species and nine new genera of *Ichneumonidae* from India, Ceylon and Japan. Entomologist, London, 36, 1903, (233-241, 260-261). [4627 ef ec 4631]. 65

Descriptions of four new species of *Vespa* from Japan. Entomologist, London, 36, 1903, (278-281). [4627 ec 4631]. 66

[Fossoria and *Apidae*.] Descriptions of new species of Hymenoptera taken by Mr. Edward Whympers on the "Higher Andes of the Equator." Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., 29, 1903, (225-238). [4627 h 4631]. 67

List of N. Zeal. Hymenoptera. Wellington, Trans. N. Zeal. Inst., 35, 1903, (290-299). [4631] 68

*Vespa germanica* F. in India. Zs. Hymenopter., Teschendorf, 3, 1903, (317). [4631 4627 ef]. 69

Hymenoptera (*Ichneumonidae*). Fauna of Maldives and Laccadive Islands, 1, (51-63). [4627 ma 4631]. 70

**Carpenter**, G. H. and **Pack-Berensford**, D. R. The relationship of *Vespa austriaca* to *Vespa rufa*. Ent. Mag., London, 39, 1903, (230-242, pl. IV); Irish Nat., Dublin, 12, 1903, (221-238, pl. II). [4619 4631]. 71

**Casteel**, D. B. and **Phillips**, E. F. Comparative variability of drones and workers of the honey bee [*Apis mellifica*]. Wood's Holl, Mass., Mar. Biol. Lab. Bull., 6, 1903, (18-37, with text fig.). [4623 4631]. 72

**Cockerell**, T[heodore] D[ru] A[lison]. Bees of the genus *Nomada* from California. Philadelphia, Pa., Proc. Acad. Nat. Sci., 55, 1903, (559-579). [4627 gi 4631]. 73

North American bees of the genus *Nomada*. Philadelphia, Pa., Proc. Acad. Nat. Sci., 55, 1903, (580-614). [4627 g 4631]. 74

Notes on some genera of bees. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., 29, 1903, (183-189). [4631]. 75

The bee genus *Xenoglossa* in California. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (103). [4627 gi 4631]. 76

**Cockerell**, T[heodore] D[ru] A[lison]. The genus *Lithurgopsis*. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (182). [4631]. 77

——— *Xylocopa varipuncta* Patt. [in Arizona, Lower California and Mexico]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (318). [4631]. 78

——— *Colletes crucis* [n. sp.]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (1304). [4631]. 79

——— A new bee of the genus *Andrena*. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (215). [4631]. 80

——— A new plant-louse [*Aphis tetrapteralis* n. sp.] from southern California [with note on the ant which attends it, new form of *Cremastogaster*]. Los Angeles, Bull., So. Cal. Acad. Sci., **1**, 1902, (40-41). [4031 4631]. 81

——— Hymenoptera of southern California. Los Angeles, Bull., So. Cal. Acad. Sci., **1**, 1902, (70-71, 137-140). [4627 gi 4631]. 82

——— New American Hymenoptera mostly of the genus *Nomada*. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (200-214). [4627 g 4631]. 83

——— North American bees and a new Homopteron. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (442-455). [4031 4627 g 4631]. 84

——— Notes on the bee: genus *Apis*. Entomologist, London, **36**, 1903, (177-178). [4631]. 85

——— Notes on the bee: genus *Halictus*. Entomologist, London, **36**, 1903, (206-208). [4631]. 86

**Coupin**, Henri. Les *Bembex*. Nature, Paris, (1<sup>er</sup> sem.), **31**, 1903, (65-67, av. fig.). [4631 4619 4615]. 87

——— Les hyménoptères parasites. Nature, Paris, (1<sup>er</sup> sem.), **31**, 1903, (297-299, av. fig.). [4619 4615]. 88

**Crepieux-Jamin**, J. Les essaims naturels. Rev. Internat. Apicult., Nyon, **25**, 1903, (129-131). [4619 4631]. 89

**Czerski**, Stanislaw. Nouvelles recherches sur la myrmécophilie. (Polonais) Wszechświat, Warszawa, **22**, 1903, (308-311). [4619 4819]. 90

**Dadant**, C. P. La fécondité des faux-bourbons. Rev. Internat. Apicult., Nyon, **25**, 1903, (61-64). [4619 4631]. 91

**Dalla Torre**, von et **Kieffer**, J. J. Fasc. 10. Hymenoptera. Fam. *Cynipidae*. In: Wytzman, P., Genera Insectorum, Bruxelles, 1902, (53-84). fr. 11.20. [4631]. 92

**Dambach**. Die Bienenlaus. Schweiz. Bienenztg, Aarau, **25**, 1902, (447-449). [4219 4231 4619]. 93

**Dickel**, Ferd. Hat die Biene Eigenwärme und welche? D. ill. Bienenztg, Leipzig, **19**, 1902, (50-52). [4611 4631]. 94

——— Die neueste Entwicklungsphase meiner Lehre. D. ill. Bienenztg, Leipzig, **20**, 1903, (174-177). [4611]. 95

——— Einiges über meine Theorie der Geschlechtsbildung. [In: Kalender für deutsche Bienenfreunde, hrsg. v. O. Krancher.] Leipzig, 1903, (108-111). [4611]. 96

**Dominique**, J. Sur un hyménoptère nouveau pour la Loire-Inférieure. Nantes, Bul. soc. sci. nat., **12**, 1902, (XXVII-XXVIII). [4631]. 97

**Dorr**, Emile. Rareté des lépidoptères. Abondance de parasites. Feuille jeunes natural., Paris, (sér. 4), **34**, 1903, (38). [4419 4219 4619]. 98

**Doumas**. Observations sur l'apiculture en Algérie. Paris, Bul. soc. nat. acclim., **50**, 1903, (86-90). [4603 4631]. 99

**Dreyling**, L. Ueber die wachsbereitenden Organe der Honigbiene. Zool. Anz., Leipzig, **26**, 1903, (710-715). [4607 4631]. 100

**Du Buysson**, R. Nidification de quelques Mégachiles. Paris, Ann. soc. ent., **71**, (2<sup>e</sup> semest.), 1902, [1903], (751-755). [4619 4631]. 101

——— Monographie des guêpes ou *Vespa*. Paris, Ann. soc. ent., **72**, (2<sup>e</sup> semest.), 1903, (260-288, av. pl.). [4603 4631]. 102

——— Description d'une Polybie nouvelle d'Afrique. Paris, Bul. soc. ent., **1902**, (253-254). [4631 4627 fd]. 103

——— Hyménoptères nouveaux du Congo. Bul. Muséum, Paris, **1902**, (599-601). [4631 4627 fd]. 104

**Du Buysson, R.** Hyménoptères récoltés au Japon par M. J. Harmand. Bul. Muséum, Paris, 1903, (125-127). [4631 4627 ec]. 105

— Sur quelques Chrysidides du Musée de Vienne. Wien, Ann. Nat.Hist. Hofmus., 16, 1901, (97-104). [4631]. 106

**Ducke, Adolf.** Neue südamerikanische Chrysididen. Zs. Hymenopter., Teschendorf, 3, 1903, (129-136, 226-232). [4627 h 4631]. 107

— Beitrag zur Synonymie der neotropischen Apiden. Zs. Hymenopter., Teschendorf, 3, 1903, (176-177). [4631]. 108

— Biologische Notizen über einige südamerikanische Hymenoptera. Allg. Zs. Ent., Neudamm, 8, 1903, (368-372). [4619 4611]. 109

— Neue Arten der genus *Bothynostethus* Kohl. Wien, Verh. ZoolBot. Ges., 52, 1902, (575-580). [4627 4631]. 110

**Dufour, H. c. Forel, A.**

**Eckel, Lida S.** The resin gnat *Diplosia* and three of its parasites. Philadelphia, Pa., Ent. News Acad. Nat. Sci., Amer. Ent. Soc., 14, 1903, (279-284, with pl.). [4231 4610 4631]. 111

**Emery, C.** A propos de la classification des Formicidés : réponse à l'article publié sous le même titre par M. le prof. Forel. Bruxelles, Ann. Soc. ent. Belgique, 45, 1901, (197-198). [4631]. 112

**Enderlein, Günther.** Drei neue Bienen mit rüsselartiger Verlängerung des Kopfes. Berliner ent. Zs., 48, 1903, (35-40). [4631]. 113

— Zwei neue ostafrikanische *Zeuzerania*-Arten. [Z. *globiceps* u. *Z. tenuistilus*.] Berliner ent. Zs., 48, 1903, (41-44). [4627 fb 4631]. 114

— Neue und weniger bekannte afrikanische Xylocopen, besonders aus der Ausbeute des Freiherrn von Erlanger in Galla und Somali. Berliner ent. Zs., 48, 1903, (45-64). [4627 f 4631]. 115

**Escherich, K[arl].** Beiträge zur Kenntnis der Thysanuren. Reihe I. Zool. Anz., Leipzig, 26, 1903, (345-366). [3619 3631 4619]. 116

— Ueber die Biologie der Ameisen. Uebersicht über die neueren

Arbeiten. Zool. Centralbl., Leipzig, 10, 1903, (209-250). [4619 4631]. 117

**Everett, J. D.** On the mathematics of bees' cells. London, Proc. Physic. Soc., 18, 1903, (510-513). [4619]. 118

**Faas, H[enri].** Détails sur la biologie des hyménoptères, la perforation des métaux. Lausanne, Bull. Soc. Sci. Nat., (sér. 4), 39, 1903, (III-IV); Arch. Sci. Phys., Genève, (sér. 4), 15, 1903, (214-215). [4619]. 119

**Fernald, H.** The plum webbing saw-fly [*Lydia rufipes*]. Philadelphia, Pa., Ent. News, Acad. Nat. Sci., Amer. Ent. Soc., 14, 1903, (298-302). [4615 4631]. 120

**Ferton, Ch.** Notes détachées sur l'instinct des hyménoptères mellifères et ravisseurs (2<sup>e</sup> série), avec la description d'une nouvelle espèce. Paris, Ann. soc. ent., 71, (2<sup>e</sup> semest.), 1902, (499-531, av. 1 pl.). [4619 4631]. 121

**Fielde, Adele M[arion].** Notes on an ant [*Stenamma fulvum piceum*]. Philadelphia, Pa., Proc. Acad. Nat. Sci., 54, 1902, [1903], (599-625). [4619 4631]. 122

— Supplementary notes on an ant [*Stenamma fulvum piceum*]. Philadelphia, Pa., Proc. Acad. Nat. Sci., 55, 1903, (491-495). [4619 4631]. 123

— Experiments with ants induced to swim. Philadelphia, Pa., Proc. Acad. Nat. Sci., 55, 1903, (617-624). [4619 4631]. 124

— Artificial mixed nests of ants. Wood's Holl, Mass., Mar. Biol. Lab. Bull., 5, 1903, (320-325). [4619 4631]. 125

— A cause of foud between ants of the same species living in different communities. Wood's Holl, Mass., Mar. Biol. Lab. Bull., 5, 1903, (326-329). [4619 4631]. 126

**Fischer, Ed[uard].** *Myrmecodia echinata* (aus Sumatra). Bern, Mitt. Nat. Ges., 1903, (XI). [4619 4631]. 127

**Florentin, R.** Note sur une larve de Tenthrede du noisetier et du bouleau. Feuille jeunes natural., Paris, (sér. 4), 33, 1903, (105-107, av. fig.). [4615 4619 4631]. 128

- Forel, Aug.** A propos de la classification des fourmis. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (136-141). [4631]. 129
- Variétés myrmécologiques. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (334-382). 129A
- Fourmis termitophages, lestobiose, *Atta tardigrada*, sous-genres d'*Euponera*. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (389-398). [4619 4631]. 130
- Les fourmis du Sahara Algérien, recoltées par M. le professeur A. Lameere et le docteur A. Diehl. Bruxelles, Ann. Soc. ent. Belgique, **46**, 1902, (147-156). [4627 *fc* 4631]. 131
- Nouvelles espèces de Ponerinae. Rev. Suisse Zool., Genève, **9**, 1901, (325-353); Aussi publié à part. Genève (Kündig et fils), 1901, (28). 8vo. [4631]. 132
- Myrmecinae nouveaux de l'Inde et de Ceylan. Rev. Suisse Zool., Genève, **10**, 1902, (165-249). [4627 *ef* 4631]. 133
- Fourmis nouvelles d'Australie. Rev. Suisse Zool., Genève, **10**, 1902, (465-548). [4627 *i* 4631]. 134
- Les fourmis des Iles Andamans et Nicobares. Rev. Suisse Zool., Genève, **11**, 1903, (399-411). [4627 *ma* 4631]. 135
- Die Sitten und Nester einiger Ameisen der Sahara bei Fugurt und Biskra. Beobachtet von Dr. August Diehl. Schaffhausen, Mitt. Schweiz. Entomol. Ges., **10**, 1903, (453-459). [4619 4627 *fa*]. 136
- Faune myrmécologique des noyers dans le canton de Vaud. Lausanne, Bul. Soc. Sci. Nat., (sér. 4), **39**, 1903, (83-94). [4627 *di* 4631]. 137
- Recherches biologiques récentes de Miss Adèle Fielde sur les fourmis. Lausanne, Bul. Soc. Sci. Nat., (sér. 4), **39**, 1903, (95-99). [4619]. 138
- Les Formicides de l'empire des Indes et de Ceylon. Bombay. J. Nat. Hist. Soc., **14**, 1903, (679-715). [4631]. 139
- Einige neue Ameisen aus Süd-Angola. [In: Kunene-Sambesi-Expedition, hrsg. v. O. Warburg.] Berlin, 1903, (559-564). [4627 *f* 4631]. 141
- The social life of ants. [Translated by F. C. de Sumichrast.] Int. Mon., Burlington, Vt., **5**, 1902, (563-579, 710-724). [4619 4631]. 142
- Forel, Aug. et Dufour, H.** La sensibilité des fourmis à l'action de la lumière ultra-violette et à celle des rayons Röntgen. Aarau, Verh. Schweiz. Natf. Ges., **85**, 1902, (81-82); Arch. Sci. Phys., Genève, (Ser. 4), **14**, 1902, (558-559). [4611]. 143A
- Fox, William J[oseph].** *Lithurgopsis*, a new genus of bees. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (137-140). [4631]. 143
- Note on *Lithurgopsis*. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (182). [4631]. 144
- Freierleben, Georg.** Unsere Ameisen. Aus d. Heimat, Stuttgart, **16**, 1903, (67-68). [4627 *dc*]. 145
- Frey-Gessner, E.** Bemerkungen ueber die Imhoff'schen Apiden-Arten in der "Isis" von Oken 1832 and 1834. Schaffhausen, Mitt. Schweiz. Entomol. Ges., **10**, 1902, (412-418). [4631]. 146
- *Bombus grandaevus* Heer. Schaffhausen, Mitt. Schweiz. Entomol. Ges., **10**, 1902, (419). [4631]. 147
- Hymenoptera Helvetiae. Schaffhausen, Mitt. Schweiz. Entomol. Ges., **10**, 1903, Beilage (149-180); **11**, 1903, Beilage (181-212). [4627 *di* 4631]. 148
- Die Männchen der *Anthrena aeneiventris* Mor., *incisa* Evers., *parviceps* Krchb. und *rogenhoferi* Mor. Schaffhausen, Mitt. Schweiz. Entomol. Ges., **11**, 1903, (40-45). [4623 4631]. 149
- Hyménoptères du Valais. Bul. Murith., Aigle, **31**, 1902, (21-80). [4627 *di*]. 150
- Hyménoptères du Valais (Suite). Bul. Murith., Aigle, **33**, 1903, (200-248). [4627 *di*]. 151
- Frise, H.** *Melitturgula*, eine neue Bienengattung aus Süd-Afrika. Zs. Hymenopter., Teschendorf, **3**, 1903, (33-34). [4627 *fg* 4631]. 152
- Neue Arten der Bienengattung *Xylocopa* Latr. aus der neotropischen und orientalischen Region. Zs. Hymenopter., Teschendorf, **3**, 1903, (202-208). [4627 *h eg* 4631]. 153

- Friese, H.** Neue *Megachile*-Arten des Sunda-Archipel. Zs. Hymenopter., Teschendorf, **3**, 1903, (241–245, 349–359). [4627 eg 4631]. 154
- Neue Arten der Bienen-gattung *Megachile* (Blattschneiderbiene) aus Amerika. Zs. Hymenopter., Teschendorf, **3**, 1903, (246–248). [4627 g 4631]. 155
- Neue *Bombus*-Arten aus der neotropischen Region. Zs. Hymenopter., Teschendorf, **3**, 1903, (253–255). [4627 h 4631]. 156
- Neue afrikanische *Megachile*-Arten II. Zs. Hymenopter., Teschendorf, **3**, 1903, (273–390). [4627 f 4631]. 157
- Neue Meliponiden II. Zs. Hymenopter., Teschendorf, **3**, 1903, (359–361). [4631]. 158
- Ueber eine Koloniebildung bei der Mörtelbiene. (*Chalicodoma muraria* Retz.) Allg. Zs. Ent., Neudamm, **8**, 1903, (313–315). [4619 4631]. 159
- Nachtrag zur Monographie der Bienen-gattung *Euglossa*. (Ungarisch) Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., **1**, 1903, (574–575). [4631]. 160
- Frohawke, F. W.** Attitude of hibernating wasp. Entomologist, London, **36**, 1903, (33–34). [4619 4631]. 161
- Gaule, J. de.** Un erratum au *Catalogue Hymenopterorum* de Dalla Torre. Feuille jeunes natural., Paris (sér. 4), **34**, 1903, (26). [4631 4627]. 162
- Gerstung, F.** Der Bienenstaat. Glauchen u. Wissen, Stuttgart, **1**, 1903, (183–190, 221–228). [4631 4610]. 163
- Giard, Alfred.** Larve des feuilles du noisetier. Feuille jeunes natural., Paris (sér. 4), **33**, 1903, (52). [4619 4615 4631]. 164
- Larve de Tenthrede du noisetier et du bouleau [réponse à M. R. Florentin]. Feuille jeunes natural., Paris (sér. 4), **33**, 1903, (133). [4615 4619 4631]. 165
- Girault, A. Arsene.** A new species of gall-wasp [*Aulacidea solidaginis*] (*Cynipidae*) from Goldenrod (*Solidago*). Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (323–324, with fig. in text). [4631]. 166
- Goeken, F.** Eigentümliche Schwarm-anlegestellen [der Honigbiene]. Bienenwirthsch. Centralbl., Hannover, **38**, 1902, (357–358). [4619 4631]. 167
- Warum werden die König-zellen senkrecht angelegt? Bienenwirthsch. Centralbl., Hannover, **39**, 1903, (52). [4619 4631]. 168
- Zur Befruchtung der Königinnen. Bienenwirthsch. Centralbl., Hannover, **39**, 1903, (310). [4619 4631]. 169
- Goodchild, J. G.** Ants in relation to flowers. Edinburgh, Trans. Nat. Soc., **5**, 1903, (10–23). [4619 4615]. 170
- Gravenhorst, C. J. H.** Der praktische Imker. Lehrbuch der rationalen Bienenzucht auf beweglichen und unbeweglichen Waben. 5. verm. u. verb. Aufl., neue Ausg. Leipzig (R. C. Schmidt u. Co.), 1903, (XVIII + 275). 23 cm. Geb. 5 M. [4603 4631]. 171
- Gubler, Ulr.** Une reine qui ne pond que des œufs stériles. Rev. Internat. Apicult., Nyon, **24**, 1902, (149). [4619] 172
- Habermehl, H.** Ueber Ichneumoniden. Varietäten und neue Arten. Zs. Hymenopter., Teschendorf, **3**, 1903, (97–104, 185–192, 217–225). [4631]. 173
- Neue Ichneumoniden aus Südwestdeutschland. Zs. Hymenopter., Teschendorf, **3**, 1903, (345–348). [4631]. 174
- Hamlyn-Harris, R.** The stingless bees of North and South America, considered in the light of domestication. Ent. Rec., London, **15**, 1903, (99–100). [4627 g h 4619]. 175
- Handlirsch, Anton.** Vier neue Arten der Hymenopteren-Gattung *Gorytes*. Wien, Verh. ZoolBot. Ges., **51**, 1901, (351–356). [4631]. 176
- Harling, George.** Auffälliges Naturspiel. [Beine statt der Antennen bei *Halictus* sp.] Zs. Hymenopter., Teschendorf, **3**, 1903, (208). [4623]. 177
- Heyden, [Lukas] von.** Beiträge zur Kenntnis der Hymenopteren-Fauna der weiteren Umgegend von Frankfurt a. M. [Tl IX: *Apidae*.] Frankfurt a. M., Ber. Senckenb. Ges., **1903**, Tl 2, (97–112). [4627 dc]. 178
- Hickson, S. J.** [Presidential address]. Nature, London, **68**, 1903, (452–458). [0000 6003 4603 .0803]. 179

**Hilgendorf, F. W.** On a supposed magnetic sense of direction in bees. Wellington, Trans. N. Zeal. Inst., **35**, 1903, (482-489). [4619]. 180

**Höppner, Hans.** Weitere Beiträge zur Biologie nordwestdeutscher Hymenopteren. [*Caenocryptus bimaculatus* Grv.] Allg. Zs. Ent., Neudamm, **8**, 1903, (194-202). [4619 4631]. 181

— Weitere Beiträge zur Bienenfauna der Lüneburger Heide und Mitteilungen über das Vorkommen einiger Gold- und Faltenwespen daselbst. Aus. d. Heimat, Bremerhaven, **1901/02**, 1903, (17-27). [4627 *dc*]. 182

— Beiträge zur Biologie nordwestdeutscher Hymenopteren. Aus. d. Heimat, Bremerhaven, **1901/02**, 1903, (36-38). [4619]. 183

**Holliday, Margaret.** A study of some ergatogynic ants. Zool. Jahrb., Jena, Abt. f. Syst., **19**, 1903, (293-328). [4607 4631]. 184

**Howard, L[eland] O[ssian].** On the habits of *Entilia sinuata* [in relation to ants]. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **30**, 1901, (75-78). [0219 4019 4031 4619 4631]. 185

**Hudson, W. H.** The Naturalist in La Plata. [Fourth edition. Letterpress as in previous editions, plates different.] London, 1903, (IX + 394). 8vo. [0050 4627 *hi* 5627 *hi* 5827 *hi* 6027 *hi*]. 186

**Ihering, H. von.** Biologie der stachellosen Honigbienen Brasiliens. Zool. Jahrb., Jena, Abt. f. Syst., **19**, 1903, (179-287, mit 13 Taf.). [4619 4631]. 187

**Ihering, Rudolph von.** Biologische Beobachtungen an brasilianischen *Bombus*-Nestern. Allg. Zs. Ent., Neudamm, **8**, 1903, (447-453). [4619 4631]. 188

— Zur Frage nach dem Ursprung der Staatenbildung bei den sozialen Hymenopteren. Zool. Anz., Leipzig, **27**, 1903, (113-118). [4619 4623]. 189

— Contribution à l'étude des Vespides de l'Amérique du Sud. Paris, Ann. soc. ent., **72**, (2<sup>e</sup> semest.), 1903, (144-145). [4631 4627 *h*]. 190

**Israël, W.** Ein Ephialtesweibchen bei seiner Eiablage. Gera, Jahresber. Ges. Natk., **43-45**, (1900-02), 1903, (82-84). [4631 4619]. 191

**Jacobs, J. Ch.** Catalogue des ichneumonides de la Belgique appartenant au groupe des Ophionides. Bruxelles, Ann. Soc. ent. Belgique, **47**, 1903, (200-212). [4631]. 192

**Johnson, S. Arthur.** Nests of *Agencia architecta* Say. Philadelphia, Pa., Ent. News Acad. Nat. Sci., Amer. Ent. Soc., **14**, 1903, (290). [4619 4631]. 193

**Kaempff, Rich.** Das Bienenleben im Winter. D. ill. Bienenztg., Leipzig, **19**, 1902, (3-5). [4619 4631]. 194

— Gedanken über die Drohnenschlacht. Bienenwirtsch. Centralbl., Hannover, **38**, 1902, (358-360). [4631 4619]. 195

**Karavajev, V.** Sur l'observation des fourmis dans des nids en plâtre artificiels. (Russ.) Rev. Russ. Ent., Jaroslavl, **3**, 1903, (94-98, 174-176). [4619]. 196

**Kieffer, J. J.** Zwei neue Hymenopteren (1 Cynipide und 1 Ichneumonide und Bemerkungen über einige Evaniden. Zs. Hymenopter., Tschendorf, **3**, 1903, (110-111). [4631]. 197

— Beschreibung einer neuen australischen *Gasteruption*-Art. Zs. Hymenopter., Tschendorf, **3**, 1903, (384). [4627 i 4631]. 198

— Zur Lebensweise einiger *Synergus*-Arten. Allg. Zs. Ent., Neudamm, **8**, 1903, (122-123). [4619 4631]. 199

— v. Dalle Torre, von. 200

**Kipping, [Sebastian Josef].** Der gegenwärtige Standpunkt meiner Entwicklungstheorie der Honigbiene. (Zu Ferdin. Dicks Aufsatz in Bd 16 d. Ztg.) Natw. Wochenschr., Jena, **18**, 1903, (313-315). [4611 4631]. 201

**Kirby, W. F.** Hymenoptera. Ichneumons, Wasps and Bees. [The number of species of Hymenoptera composing this fauna is considered to be probably very large, though only 44 are known.] Nat. Hist. Sokotra, (235-257, pls. XV, XVI). [4627 *f* 4631]. 202

**Kohl, Franz Friedrich.** Zur Kenntnis der palaearktischen *Diolontus*-Arten. Wien, Verh. ZoolBot. Ges., **51**, 1901, (120-134, 1 Taf.). [4607 4631]. 203

— Ueber neue Arten der Hymenopteren - Gattung *Tachysphex* Kohl. Wien, Verh. ZoolBot. Ges., **51**, 1901, (777-781, 1 Taf.). [4631]. 204

**Kohl, Franz Friedrich.** Zur Kenntnis der Sandwespen (Gen. *Ammophila* Kirby). Wien, Ann. Nat.-Hist. Hofmus., **16**, 1901, (142-164, 2 Taf.). [4631]. 205

**Kokujev, N. R.** Nouvelles espèces transcaspiennes de la sousfamille des *Agathidinae*. St. Petersburg, Hor. Soc. Ent. Ross., **36**, 1903, (240-247). [4627 ea 4631]. 206

——— *Hymenoptera asiatica nova*. I, II. Rev. Russ. Ent., Jaroslavl, **3**, 1903, (285-288, 388-389). [4627 ea 4631]. 207

**Kolbe, H. J.** Myrmekophile Insekten, speziell *Thoricus foreli* Wasm. Berlin, SitzBer. Ges. natf. Freunde, **1903**, (237-253). [4831 4819 4619]. 209

**Konow, F. W.** Zwei neue *Pamphilius*. Zs. Hymenopter., Teschendorf, **3**, 1903, (37-38). [4631]. 210

——— *Neue Chalastogastra*. Zs. Hymenopter., Teschendorf, **3**, 1903, (105-109, 166-171). [4631]. 211

——— *Neue Tenthrediniden*. (*Blennocampides*, *Selandriades* und 1 Varietät von *Allantus fasciatus* Scop.). Zs. Hymenopter., Teschendorf, **3**, 1903, (145-153). [4631]. 212

——— Ueber die Holmgren'schen Nematiden sowie über Kiaersche und andere Tenthrediniden. Zs. Hymenopter., Teschendorf, **3**, 1903, (154-162). [4631]. 213

——— Einiges über die Subtribus *Perreyides*. Zs. Hymenopter., Teschendorf, **3**, 1903, (162-166). [4631]. 214

——— Ein neues Tenthrediniden-Genus. Zs. Hymenopter., Teschendorf, **3**, 1903, (315-316). [4631]. 215

——— *Hyménoptères Tenthredinides récoltés au Japon par M. J. Harmand*. Bul. Muséum, Paris, **1903**, (128). [4627 ec 4631]. 216

——— Ueber neue oder wenig bekannte Tenthrediniden des russischen Reiches und Centralasiens. St. Petersburg, Ann. Mus. zool. Ac. Sc., **8**, 1903, (115-132). [4627 db ea eb 4631]. 217

**Kopp, C.** Ueber die Wohnungen deutscher Hautflügler. Stuttgart, Jahreshfte Ver. Natk., **59**, 1903, (LVII-LX). [4619]. 218

——— Beobachtungen über den Nestbau von *Vespa media* D. G. Aus

d. Heimat, Stuttgart, **16**, 1903, (26-27). [4631]. 219

**Krancher, L. v. Krancher, O.**

**Krancher, O. und Krancher, L.** Kleines Lexikon der Bienenzucht und Bienenkunde, unter teilweiser Berücksichtigung von Geschichte und Pflanzenkunde der Bienenzüchter. Lfg 1-13. Leipzig (R. C. Schmidt & Co.), 1902, (III + 507). 19 cm. Die Lfg 0,40 M. Complet geb. 6 M. [4603 4631]. 220

**Krausse, A. H.** Erkennen Ameisen einer Kolonie andere, derselben Art angehörenden, aber aus einer anderen Kolonie stammenden Ameisen? Nerthus, Altona, **5**, 1903, (7-8). [4619]. 221

**Krieger, R.** Zur Synonymik der Ichneumoniden. Zs. Hymenopter., Teschendorf, **3**, 1903, (290-294). [4631]. 222

**Kryger, T. P.** The Danish trimerous *Chalcididae*. (Danish with a German summary). Kjöbenhavn, Ent. Medd., (Ser. 2), **2**, 1903, (192-197). [4627 da 4631]. 223

**Kulagin, N[ikola].** Aus dem Leben der Bienen. Allg. Zs. Ent., Neudamm, **8**, 1903, (395-397). [4619 4631]. 224

**Kulwiec, Kazimierz.** [Parasites des insectes]. (Polonais) Wszczęświat, Warszawa, **22**, 1903, (213-217, 246-249). [4619 4819 1419 3019]. 225

**Lambotte, Ul.** Recherches sur le microbe de la "Loque," maladie des abeilles. Ann. Inst. Pasteur, Paris, **16**, 1902, (694-704). [4619]. 226

**Lameere, Aug.** Note sur les mœurs des fourmis du Sahara. Bruxelles, Ann. Soc. ent. Belgique, **46**, 1902, (160-169). [4619]. 226a

**Lewis, E. J.** The oak galls and gall insects of Epping Forest. Pt. I. Stratford, Essex Nat., (267-286). Pt. II. Descriptive and faunistic, ib., **13**, 1903, (138-160, incomplete). [4627 de 4615]. 227

**Ljungström, J[ohn] Alb[ert].** Pees in winter-time. (Swedish) Stockholm, 1901, (156, with pl.). 18 cm. [4619 4631]. 228

**Lotter, J. W.** Katechismus der Bienenzucht. 6. Aufl. Nürnberg (F. Korn), 1903, (IV + 234). 18 cm. 1,60 M. [0060 4603 4631]. 229



**Lüke.** Weiteres zur *Lyda*-Kalamität. Zs. Forstw., Berlin, **35**, 1903, (411-417). [4631]. 230

**Lüttner, [Gustav].** Kurze Mitteilung über eine im Marke eines Rebschenkels aufgefundene Grabwespe. Mitt. Weinbau, Geisenheim, **15**, 1903, (108-109). [4631]. 231

**McClendon, J. F. v. Wheeler, W[illiam] M[orton].**

**McLachlan.** [*Megachile* and flowers.] Ent. Mag., London, **39**, 1903, (255). [4619 4631]. 232

**Masterlinck, Maurice.** The wrath of the bee. Harper's Monthly Magazine, New York and London, **105**, 1902, (467-469). [4619 4631]. 233

Das Leben der Bienen. Autorisierte Ausg. in das Deutsche übertragen von Friedrich v. Oppeln-Bronikowski. 2. erweit. Aufl. Leipzig (E. Diederichs), 1903, (264). 20 cm. 4,50 M. [4619 4631]. 234

**Marchand, Ernest.** Inventaire des Tenthredinides [*sic*] ou mouches à scie (Hymenoptera-Chalastogastra) recueillies aux environs de Nantes, suivi de notices sur quelques espèces particulièrement nuisibles. Nantes, Bul. soc. sci. nat., (sér. 2, **2**), **12**, 1902, (233-296). [4619 4627 df 4631]. 236

**Marlatt, [Charles] [ester].** A Chalcidid parasite [*Syntomosphyrum esurus*] of the Asiatic lady-bird [*Chilocorus similis*] [with note by Dr. L. O. Howard]. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (138-139). [4619 4631 4831]. 237

**Maury, L.** La charge de l'abeille. Rev. Internat. Apicult., Nyon, **24**, 1902, (32-33). [4619 4631]. 238

**Mayr, Gustav.** Südafrikanische Formiciden, gesammelt von Dr. Hans Brauns. Wien, Ann. Nat.Hist. Hofmus., **16**, 1901, (1-30, 2 Taf.). [4627 fg 4631]. 239

**Melander, Axel Leonard.** Notes on North American *Mutillidae*, with descriptions of new species. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (291-330, with pl.). [4627 gf ha 4631]. 240

and **Brues, Charles Thomas.** Guests and parasites of the burrowing bee *Halictus* [nn. spp. of Diptera and

Hymenoptera]. Wood's Holl, Mass., Mar. Biol. Bull., **5**, 1903, (1-27, with text figs.). [2419 4231 4619 4631]. 241

**Metze, Oskar.** Ein Bienenschwarm im Platzregen. Aus d. Heimat, Stuttgart, **16**, 1903, (69). [4631 4619]. 242

**Meyer, Friedr. Ueber „Richtungskörperbildung“ im Hoden von Hymenopteren.** Anat. Anz., Jena, **24**, 1903, (29-32). [4615]. 243

Richtungskörperbildung in der Spermatogenese. Kiel, Mitt. Ver. schlesw.-holst. Aerzte, (N.F.), **11**, 1903, (240-241). [4615]. 244

**Mocsáry, Alexand.** Species novae vel minus cognitae generis *Synagris* Latr. Budapest, Ann. Hist. Nat. Mus. Nat. Hung., **1**, 1903, (503-508). [4631]. 245

**Morice, F. D.** New Hymenoptera Aculeata taken by the Swedish Zoological expedition to Egypt and the White Nile in the spring of 1901. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (610-615). [4627 fb 4631]. 246

Help-notes towards the determination of British *Tenthredinidae*. Ent. Mag., London, **39**, 1903, (9-14, 47-54, 114-119, 187-193, 242-245, 275-277). [4607 4627 de 4631]. 247

Gynandromorph *Osmia*. London, Proc. Ent. Soc., **1903**, (6). [4611 4631]. 248

The probable "hosts" of *Ammobates corinatus* Morawitz and *Phiarus melectoides* Smith. Zs. Hymenopter., Teschendorf, **3**, 1903, (317). [4631]. 249

v. Saunders, E.

**Morley, C.** Insects, especially parasitic Hymenoptera, noticed in the New Forest in August, 1901. Ent. Mag., London, **39**, 1903, (25-29). [4627 de]. 250

*Ichneumonologia britannica.* The Ichneumons of Great Britain. A descriptive account of the families, genera and species indigenous to the British Islands, together with notes as to classification, localities, habitats, hosts, etc. Ichneumoninae. Plymouth, 1903, (1.+315, 1 pl.). 8vo. [4627 de 4631]. 251

r. Saunders, E.

- Nicolle, Lionel de** (*the late*). Insect pests of fruit trees. Calcutta, Ind. Mus. Notes, **5**, 1903, (117-127, with pls.). [4019 4419 4619 4819]. 252
- Insect pests of the sugarcane. Calcutta, Ind. Mus. Notes, **5**, 1903, (164-182, with pls.). [4019 4419 4619 4819]. 253
- Nielsen, T. C.** Note on the life-history of *Perisemus fulvicornis* Curt. (Danish, with an English summary) Kjöbenhavn, Ent. Medd., (Ser. 2), **2**, 1903, (105-109). [4619 4631]. 254
- Observations on the life-history of some Danish fossorial wasps. (Danish) Kjöbenhavn, Ent. Medd., (Ser. 2), **2**, 1903, (110-114). [4619 4627 da 4631]. 255
- Untersuchungen über die Lebensweise und Entwicklung einiger Arten der Gattung *Synergus*. Allg. Zs. Ent., Neudamm, **8**, 1903, (35-37). [4631]. 256
- Nilsen, J. C.** Ueber die Entwicklung von *Bombylius pumilus* Meig., einer Fliege, welche bei *Colletes dariesana* Smith schmarotzt. Zool. Jahrb., Jena, Abt. f. Syst., **18**, 1903, (647-658, mit 1 Taf.). [4219 4231 4619 4631]. 257
- Noel, P.** Les ennemis des abeilles. Naturaliste, Paris, (sér. 2), **24**, 1902, (70-71, 87, 96-97). [4619 4631]. 258
- Norman, A. M.** Notes on the Natural History of East Finmark. [Insecta.] Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (166-173). [4227 db 4231 4427 db 4431 4627 db 4631 4827 db 4831]. 259
- Nurse, C. G.** New species of Indian Aculeate Hymenoptera. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (393-403, 511-526, 528-549). [4627 ef 4631]. 260
- New species of Indian *Chrysididae*. [Continuation.] Entomologist, London, **36**, 1903, (10-12, 40-42). [4627 ef 4631]. 261
- New species of Indian Hymenoptera. Bombay, J. Nat. Hist. Soc., **15**, 1903, (1-18). [4627 ef 4631]. 262
- Olivier, Ernest.** Note entomologique. Echange, Lyon, **17**, 1902, (46). [4631]. 263
- Oppeln-Bronikowski, Friedrich** von v. Maerlinck, M.
- Oudemans, A. C.** Symbiose von *Copertorthosoma* und *Greenia*. Eine Prioritätsfrage. Zool. Anz., Leipzig, **37**, 1903, (137-139). [4631 4619 3031 3019]. 264
- Pack-Beresford, D. R.** Notes on wasps. Irish Nat., Dublin, **12**, 1903, (16-17). [4631]. 265
- [Hibernating position of the wasp.] Irish Nat., Dublin, **12**, 1903, (167). [4619]. 266
- v. Carpenter, G. H.
- Patzner, C. G. E.** Schlesiens Bienenzucht. [In: Bunte Bilder aus dem Schlesierlande, Bd 2.] Breslau, 1903, (127-133). [4603 4631]. 267
- Pérez, C.** Contribution à l'étude des métamorphoses. Bul. sci. France-Belgique, Paris, **37**, 1903, (195-427, av. fig. et 3 pls.); Thèse fac. sci. Lille, 1902, (240, av. 3 pls.). 29 cm. [4603 4615 0215]. 268
- Perez, J.** Espèces nouvelles de Melifères paléarctiques. Bordeaux, Actes soc. linn., (sér. 6, 7), **57**, 1902, (Proc.-verb., XLIII-XLVIII, CLXXIV-CLXXIX). [4631]. 269
- Diagnoses d'espèces nouvelles de Mellifères. Bordeaux, Actes soc. linn., **58**, 1903, (Proc.-verb., LXXVIII-XCIII, CCVII-CCXXXVI). [4631]. 270
- Perraudière, R. de la.** Note sur *Coreobus fasciatus* Vill.—*bifasciatus* Ol. et ses parasites. Paris, Bul. soc. ent., **1902**, (251-253). [4619 4831 4819]. 271
- Petrunkewitsch, Alexander.** Das Schicksal der Richtungskörper im Drohnenei. Ein Beitrag zur Kenntniss der natürlichen Parthenogenese. Zool. Jahrb., Jena, Abt. f. Anat., **17**, 1903, (481-516, mit 3 Taf.). [4611 4615]. 272
- Phillips, E. F. v. Costeel, D. B.**
- Pic, M.** Notes hyménoptérologiques. Echange, Lyon, **17**, 1902, (38). [4619 4627 df 4631]. 273
- Hyménoptères recueillis en Grèce. Echange, Lyon, **17**, 1902, (46). [4631 4627 dl]. 274
- Diagnoses d'Ichneumoniens faisant partie de la collection Pic. Echange, Lyon, **17**, 1902, (57-58). [4631]. 275

**Pic, M.** Les types de Ichneumonciens de ma collection. Echange, Lyon, **17**, 1902, (62, 70-78); **19**, 1903, (96, 101, 120, 136). [4631]. 276

**Picard, F.** Mœurs de l'*Ammophila tydei* Guill. Feuille jeunes natural., Paris, (sér. 4), **34**, 1903, (15-17). [4631 4619]. 277

**Pierre, Abbé.** Sur l'évolution de *Lixus iridis* Oliv. et de Chalcidides parasites de l'œuf, de la larve et de l'imago. Echange, Lyon, **19**, 1903, (108-110, 116-117, 132-133, 141-144). [4831 4819 4631 4619]. 278

**Plateau, Felix.** Observations sur le phénomène de la constance chez quelques hyménoptères. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (56-83). [4619]. 279

— Observations sur les erreurs commises par les hyménoptères visitant les fleurs. Bruxelles, Ann. Soc. ent. Belgique, **46**, 1902, (113-129). [4619]. 280

**Pomerancev, D. V.** Beitrag zur Kenntnis der auf der Fichte (*Picea excelsa*) lebenden schädlichen und nützlichen Insecten. (Russ.) St. Petersburg, Izv. Leñ. Inst., **8**, 1902, (3-25, mit 1 Taf.). [4015 4019 4415 4419 4615 4619 4815 4819]. 281

**Quall, A.** A fly and a spider. (*Salix monachus* and *Porrothale antipodiana*.) Wellington, Trans. N. Zeal. Inst., **35**, 1903, (256-258). [4619 3019]. 282

**Reber, D.** Übertragung von Bienen-eiern aus bestifteten Zellen in leere Zellen durch die Arbeitsbienen. Schweiz. Bienenztg, Aarau, **25**, 1902, (273-276). [4619 4631]. 283

**Rey, Eugène.** Zur Eiablage von *Lophyrus pini*. Insektenbörse, Leipzig, **20**, 1903, (268). [4631 4619]. 284

**Robertson, Charles.** Some new or little known bees. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (79-81). [4631]. 285

— Synopsis of Sphocodinae [New genera *Drepanium*, *Proteraner*, *Sphocodium*, *Dialonia* and *Machaeris*]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, ([103]-107). [4631]. 286

— Synopsis of Megachilidae and Bombinae. Philadelphia, Pa., Acad. Nat. Sci. Trans. Amer. Ent. Sci., **29**, 1903, (163-178). [4631]. 287

**Rod, Edouard.** Maeterlinck's essay on the life of bees. [Translated by F. C. de Sumichrast.] Int. Mon., Burlington, Vt., **5**, 1902, (431-447). [4619 4631]. 288

**Rodigas, Edgar.** Contre les fourmis. Bruxelles, Bul. Soc. roy. linn., **1902**, No. 7. [4619]. 289

**Rohrbacher, Al.** Wirkungen von Bienenstichen. D. ill. Bienenztg. Leipzig, **20**, 1903, (56-57). [4619 4631]. 290

**Rossum, A. J. van.** *Pteronon spiraeae* Zdd., eine für die niederländische Fauna neue Blattwespe. (Holländisch) 's Gravenhage, Tijdschr. Ent., **45**, 1903, (246-257, mit 1 Taf.). [4627 dd 4631]. 291

**Rothe, H. H.** Das Leben der Hummeln. Natw. Wochenschr., Jena, **18**, 1903, (457-462). [4619 4631]. 292

**Rothney, G. A. J.** The aculeate Hymenoptera of Barrackpore, Bengal. London, Trans. Ent. Soc., **1903**, (93-116). [4619 4627 ef]. 293

**Rucker, Augusta.** A glimpse of the life history of *Mutilla vesta* Cresson. Austin, Cont. Zool. Lab. Univ. Tex., No. **44**, in Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (75-77). [4619 4631]. 294

**Rudow.** Einige ausländische Insektenbauten. Insektenbörse, Leipzig, **20**, 1903, (19). [4619]. 295

— Zwei Insektenbauten aus Ceylon. Insektenbörse, Leipzig, **20**, 1903, (164). [4619]. 296

— Einige Insektenbauten. Insektenbörse, Leipzig, **20**, 1903, (259-260, 269-270). [4619]. 297

— Verzeichnis der Nester bauenden Hautflügler, Hymenoptera. Europas. Ent. Jahrb., Leipzig, **12**, 1903, (182-209). [4619 4631]. 298

**Rusakij, M.** Die Ameisenfauna der Astrachanischen Kirgisensteppes. (Russ.) St. Petersburg, Hor. Soc. Ent. Ross., **36**, 1903, (294-316). [4627 db 4631]. 299

— Une nouvelle fourmi de la Transcaspienne. (Russ.) Rev. Russ. Ent., Jaroslavl, **3**, 1903, (36-37). [4627 ek 4631]. 300

— Fourmis de la province Transbalticenne. (Russ.) Rev. Russ. Ent., Jaroslavl, **3**, 1903, (205-207). [4627 ea 4631]. 301

- Rusakij, M.** Die Ameisen der Umgebungen des Aral-Sees. (Russ.) Taschent, Izv. Turk. Otd. Russ. Geogr. Obsč., **3**, 1902, livr. 1, (1-25). [4627 4631]. 302
- Saakov.** Ueber die künstliche Vermehrung des Parasiten der Eier der Getreidewanze (*Eurygaster integriceps* Orch.) Trd. B. entom. Učen. Kom. M. Zeml., St. Petersburg, IV, No. 2, 1903, (12). [4019 4615 4619]. 303
- Sahlberg, John.** [Entomologische Forschungsreisen in den Mittelmeergegenden und Central-Asien.] (Schwedisch) Helsingfors, Öfvers. F. Vet. Soc., **45**, [No. 9], 1902-1903, (1-31); [No. 17], (1-38). [4127 4627 4827 *dl dm ei fa fb*]. 303A
- Sargent, Frederick le Roy.** Plants that keep a body-guard. Plant World, Washington, D.C., **6**, 1903, (103-905). [4619]. 304
- Saunders, E.** Hymenoptera Aculeata collected by the Rev. Alfred E. Eaton, M.A., in Madeira and Teneriffe, in the spring of 1902, including notes on species taken by the late T. Vernon Wollaston and F. A. Bellamy. London, Trans. Ent. Soc., **1903**, (207-218). Supplementary note, *ib.*, (551). [4627 *lb* 4631]. 305
- *Odynerus (Hoplopus) similis* Mor., a wasp new to the British list. Ent. Mag., London, **39**, 1903, (6-7). [4627 *de* 4631]. 306
- Hymenoptera Aculeata in Jersey, June, 1903. Ent. Mag., London, **39**, 1903, (245-248). [4627 *de* 4631]. 307
- On the relationship of Aculeate inquilines and their hosts. Ent. Mag., London, **39**, 1903, (272-274). [4619 4631]. 309
- **Morice, F. D. and Morley, C.** Hymenoptera collected by Colonel Yerbury in Herefordshire, 1902. Ent. Mag., London, **39**, 1903, (111-114). [4627 *de* 4631]. 310
- Hymenoptera in South Kerry. Irish Nat., Dublin, **12**, 1903, (68). [4627 *de*]. 311
- Schenk, Otto.** Die antennalen Hautsinnesorgane einiger Lepidopteren und Hymenopteren mit besonderer Berücksichtigung der sexuellen Unterschiede. Zool. Jahrb., Jena, Abt. f. Anat., **17**, 1903, (573-618, mit 2 Taf.). [4407 4607]. 312
- Schisamer, C.** *Ibalia cutellator* Ltr. und *Ibalia schirmeri* Kff., Schnarotzer bei *Sirex jutencus* L. Soc. Entomol., Zürich, **18**, 1903, (121-122). [4619 4631]. 313
- Schletterer, August.** Beitrag zur Hymenopteren Fauna von Süd-Istrien. Wien, Verh. ZoolBot. Ges., **51**, 1901, (215-220). [4627 *dk* 4631]. 314
- Schmiedeknecht, O.** Die Ichneumoniden tribus der Anomalinen. Eine Uebersicht sämtlicher Gattungen sowie der paläarktischen Arten. Zs. Hymenopter., Tschendorf, **2**, 1902, (357-368); **3**, 1903, (1-8, 73-80, 171-176). [4631]. 315
- Opuscula Ichneumonologica. Fasc. I. II. Blankenburg i. Thür. (Selbstverlag, Druck v. W. Greve, Neubrandenburg), 1902-1903, (1-160). 23 cm. [4631]. 316
- Schrottiky, C.** Neue brasilianische Hymenopteren. Zs. Hymenopter., Tschendorf, **3**, 1903, (39-45). [4627 *hh* 4631]. 317
- Schulz, W. A.** Ueber *Tipulophion rufithorax* Cam. Zs. Hymenopter., Tschendorf, **3**, 1903, (249-253). [4631]. 318
- Kritische Bemerkungen zur Hymenopteren-Fauna des nordwestlichen Südamerika. Berliner ent. Zs., **48**, 1903, (253-262). [4627 *h* 4631]. 319
- Beiträge zur näheren Kenntnis der Schlupfwespenfamilie *Pelecinidae* Hal. München, SitzBer. Ak. Wiss., math.-phys. Cl., **33**, 1903, (435-450, mit 1 Taf.). [4631]. 320
- Materialien zu einer Hymenopterenfauna der westindischen Inseln. München, SitzBer. Ak. Wiss., math.-phys. Cl., **33**, 1903, (451-488, mit Taf.). [4627 *he* 4631]. 321
- Schuster, Ludwig.** Das Verbreitungsgebiet der Violettflügeligen Holzbiene (*Xylocopa violacea*) in Deutschland. Zool. Garten, Frankfurt a. M., **44**, 1903, (28-29). [4631]. 322
- Semenov, A. P.** De novo Eraniidarum genere. Rev. Russ. Ent., Jaroslavl, **3**, 1903, (173). [4631]. 323
- Analecta hymenopterologica I. Rev. Russ. Ent., Jaroslavl, **3**, 1903, (199). [4631]. 324

**Semenov, A. P.** Chrysididarum species novae vel parum cognitae (Hymenoptera) III. Rev. Russ. Ent., Jaroslavl, 3, 1903, (397-400). [4631]. 325

**Serebrianikov, A. V.** Ueber den grossen Kiefernspinner (*Gastropacha pini* Ochsh). (Russ.) St. Petersburg, Izv. Leśn. Inst., 7, 1901, (29-102, mit 1 Taf.). [4403 4431 4619]. 326

**Sharp, D.** *Vespa rufa* + *austriaca*. Ent. Mag., London, 39, 1903, (297-299). [4619 4623 4631]. 327

**Slosson, Annie Trumbull.** Additional list of insects taken in Alpine region of Mt. Washington. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (4-8) [2427 gg 4631 4831]. 328

Additional list of insects taken in Alpine region of Mt. Washington [nn. spp. in Parasitica]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (319-321). [2427 gg 4631]. 329

**Speiser, P[aul].** Ergänzungen zu (Zwainas „Neuem Verzeichnis der Fliegen Ost- und Westpreussens“. II. Allg. Zs. Ent., Neudamm, 8, 1903, (161-165). [4627 dc]. 330

**Stachelhausen, L. von.** Vererbung bei den Bienen. D. Bienenzucht, Freiburg i. B., 11, 1903, (21-23). [4619 4623]. 331

**Stäger, Rob.** Beobachtungen über Insekteneinbruch und Honigraub an Blüten mit tiefgeborgenen Nektar. Natur u. Offenb., Münster, 48, 1902, (234-236). [4619]. 332

**Stebbing, E. P.** Insect pests of the sugarcane in India. Calcutta, Ind. Mus. Notes, 5, 1903, (64-91). [3819 4019 4419 4619 4819]. 333

Departmental Notes on insects that affect forestry, No. 2. Calcutta, 1903, (V-VII + 151-334, with 13 pls.). 25 cm. [2419 4031 4231 4431 4631 4831]. 334

**Strand, Embr.** Hymenopterologic contributions to the fauna of Norway. (Norw.) Kristiania, Forh. Vid. selsk., 1903, No. 8, (8). [4627 da]. 335

**Strobl, Gabriel.** Ichneumoniden Steiermarks (und der Nachbarländer) (Fortsetzung). Graz, Mitt. Natw. Ver. Steierm., 1902, 1903, (3-100). [4627 dk 4631]. 336

— v. Rod, Edouard.

**Swezey, Otto H.** Observations on Hymenopterous parasites of certain *Fulgoridae*. Columbus, Ohio, Univ. Bull., (Ser. 7), No. 23, 1903, (Cont. Dept. Zool. Ent.). [Reprint from Ohio Nat. Columbus, Ohio, 3, 1903, (444-451, with pl.)] Separate. 23 cm. [4019 4031 4631]. 337

**Szépligeti, Győző.** System der palaearctischen Braconiden. (Hung.) Állat. Közlem., Budapest, 2, 1903, (105-114). [4631]. 338

**Szépligeti, Victor.** Neue Evaniiden aus der Sammlung des ungarischen National-Museums. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (364-395). [4631]. 339

Neue Joppinen aus der Sammlung des ungarischen National-Museums. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (477-483). [4631]. 340

**Taillandier.** Les abeilles pourraient-elles transformer des larves d'ouvrières en mâles? Rev. Internat. Apicult., Nyon, 24, 1902, (155-156). [4619 4631]. 341

**Thijssse, Jac[obus] P[iet]er.** Les insectes qui visitent le nénuphas blanc [*Nymphaea alba* L.] (Holländisch) De Levende Natuur, Amsterdam, 7, 1903, (120-121, av. fig.) [4631 4619]. 342

**Titus, E. S. (Jr.)** Three new *Anthidiinae* from Colorado. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (169-171). [4627 gi 4631]. 343

**Vachal, J.** Hyménoptères rapportés du Japon par M. Harmand. Mellifères (4<sup>e</sup> mémoire). Bul. Muséum, Paris, 1903, (129-132). [4631 4627 ec]. 344

**Vassiljev, I. V.** Der Baumweissling (*Aporia crataegi* L.) und dessen Parasiten. (Russ.) Trd. B. entom. Učen. Kom. M. Zeml., St. Petersburg, III, No. 8, 1902, (36, mit 16 Fig.). [4215 4219 4419 4615 4619]. 345

**Viehmeier, H.** Kleinere Beiträge zur Biologie einiger Ameisengäste. Allg. Zs. Ent., Neudamm, 8, 1903, (15-17). [2419 4619 4631]. 346

**Viereck, Henry L.** Hymenoptera of Beulah, New Mexico. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., 29, 1902-1903, (43-100). [4627 gi 4631]. 347

**Viereck**, Henry L. Classification of bees of the genus *Bombomelecta*. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (179-182). [4631]. 348

Hymenoptera from southern California and New Mexico with descriptions of new species. Philadelphia, Pa., Proc. Acad. Nat. Sci., **54**, 1902, (728-743). [4627 gi 4631]. 349

The home of some aculeate Hymenoptera [in New Jersey] with descriptions of two new species [of *Plenoculus*]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (71-74). [4627 gg 4631]. 350

A new species of *Cratichneumon*. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (87). [4631]. 351

Concerning bees [*Andrena fulvipennis* and *A. salicis*]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (237-238). [4631]. 352

*Bombus gelidus* Cress, *Bombus kincaidii* Ckell. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (54). [4631]. 353

Maryland Hymenoptera (Aculeata). Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (119-123). [4627 gh]. 354

A group of diurnal *Mutillidae* [*Photomorphus johnsoni* n. gen. et n. sp. and *P. alogus* n. sp.]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (249-251). [4631]. 355

**Wasilkowski**, Wl. Les principes géométriques de la structure des cellules des abeilles. (Pol.) Muzeum, Lwów, **19**, 1903, (896-899). [4619]. 356

**Wasmann**, E[rich]. Zum Mimikrytypus der Dorylinengäste. (135. Beitrag zur Kenntnis der Myrmecophilen und Termitophilen.) Zool. Anz., Leipzig, **26**, 1903, (581-590). [4619 4819]. 357

Zur Brutpflege der blutroten Raubameise (*Formica sanguinea* Ltr.). Insektenbörse, Leipzig, **20**, 1903, (275-276). [4631 4619]. 358

**Waterhouse**, C. O. Notes on the nests of bees of the genus *Trigona*. London, Trans. ent. Soc., **1903**, (133-136, pl. VI). [4619 4631]. 359

**Webster**, F. M. Some insect inhabitants of the stems of *Elymus canadensis*. Washington, D.C., Bull. U. S. Dept. Agric., Div. Ent., No. **40**, 1903, (92-93). [4619 4631]. 360

Some insects attacking the stems of growing wheat, rye, barley and oats, and methods of prevention and suppression. [Life histories and descriptions of species of *Inosoma*, *Meromyza* and *Oscinus*]. Washington, D.C., Bull. U. S. Dept. Agric., Div. Ent., No. **42**, 1903, (62). 23 cm. [2419 4231 4631]. 361

**Weith**, R. J. Curious habits of certain Hymenoptera [embodying notes by F. S. Daggett on the alighting of Hymenoptera on surface of water]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (90). [4619]. 362

**Wendelen**, Ch. Une fourmi incommodé et d'une destruction difficile. Chasse et pêche, Bruxelles, **1901**, (782). [4619]. 363

**Wender**, Adolf. Eine merkwürdige Eigenschaft des Bienenstachels. Aus d. Heimat, Stuttgart, **16**, 1903, (106). [4619 4631]. 364

**Wheeler**, William Morton. Extraordinary females in three species of *Formica*, with remarks on mutation in the *Formicidae*. New York, N.Y., Bull. Amer. Mus. Nat. Hist., **19**, 1903, (639-651). [4607 4623 4631]. 365

Some new gynandromorphous ants, with a review of the previously recorded cases [with bibliography]. New York, N.Y., Bull. Amer. Mus. Nat. Hist., **19**, 1903, (653-683). [4623 4631]. 366

*Erebomyrma*, a new genus of Hypogaecic ants from Texas. Austin, Cont. Zool. Lab. Univ. Tex., No. **45**, in Wood's Holl, Mass., Mar. Biol. Lab. Bull., **4**, 1903, (137-148). [4627 gi 4631]. 367

A revision of the North American ants of the genus *Leptothorax* Mayr. Austin, Cont. Zool. Lab. Univ. Tex., No. **48**, in Philadelphia, Pa., Proc. Acad. Nat. Sci., **55**, 1903, (215-260, with pl.). [4631]. 368

The origin of female and worker ants from the eggs of parthenogenic workers. Science, New York, N.Y., (N. Ser.), **18**, 1903, (830-833). [0211 4611 4631]. 369

**Wheeler, William Morton.** Notices biologiques sur les fourmis mexicaines. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (199-205). [4611 4627 h 4631]. 370

——— **Fournis mexicaines.** Bruxelles, Ann. Soc. Ent. Belgique, **45**, 1901, (123-136). [4627 h 4631]. 371

——— and **McClendon, J. F.** Dimorphic queens in an American ant. [*Lasius latipes* Walsh] [with bibliography]. Austin, Cont. Zool. Lab. Univ. Tex., No. **46**, in Wood's Holl, Mass., Mar. Biol. Lab. Bull., **4**, 1903, (149-163). [4607 4619 4631]. 372

**Willis, J. C. and Burkill, J. H.** Notes on the anthophilous insect fauna of the Clova mountains. Ann. Scot. Nat. Hist., Edinburgh, **1903**, (29 37, 99-102). [2419 4419 4427 de 4627 de 4631]. 373

**Yung, Emile.** Combien y a-t-il de fourmis dans une fourmillière (*Formica rufa*?). Chasse et pêche, Bruxelles, **1901**, (295-297). [4619]. 374

**Zavrel, Jan.** Untersuchungen über die Entwicklung der Stirnauge (Stemmata) von *Vespa*. Prag, SitzBer. Böhm. Ges. Wiss., **1902**, No. XIII, 1903, (36, mit 3 Taf.). [4615 4631]. 375

**Pérez, C.** Contribution à l'étude des métamorphoses. Bul. sci. France-Belgique, Paris, **37**, 1903, (195-427, av. fig. et 3 pls.); Thèse fac. sci. Lille, 1902, (240, av. 3 pls.). 29 cm.

#### ECONOMICS.

**Doumas.** Observations sur l'apiculture en Algérie. Paris, Bul. soc. nat. acclim., **50**, 1903, (86-90).

**Gravenhorst, C. J. H.** Der praktische Imker. Lehrbuch der rationellen Bienenzucht auf beweglichen und unbeweglichen Waben. 5. verm. u. verb. Aufl., neue Ausg. Leipzig (R. C. Schmidt u. Co.), 1903, (XVIII + 275). 23 cm. Geb. 5 M.

**Krancher, O. und Krancher, L.** Kleines Lexikon der Bienenzucht und Bienenkunde, unter teilweiser Berücksichtigung von Geschichte und Pflanzenkunde der Bienenzüchter. Lfg 1-13. Leipzig (R. C. Schmidt u. Co.), 1902, (III + 507). 19 cm. Die Lfg 0,40 M. Complet geb. 6 M.

**Patzner, C. G. E.** Schlesiens Bienenzucht. [In: Bunte Bilder aus dem Schlesierlande, Bd. 2.] Breslau, 1903, (127-133).

#### 4603 COMPREHENSIVE AND GENERAL WORKS.

##### GENERAL.

**Cameron, P.** Some new genera and species of Hymenoptera. Entomologist, London, **36**, 1903, (9).

**Du Buysson, Robert.** Monographie des guêpes ou *Vespa*. Paris, Ann. soc. ent., **72**, 2<sup>e</sup> semest., 1903, (260-288, av. pl.).

**Forel, Au.** Variétés myrmécologiques. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (334-382).

**Hickson, S. J.** [Presidential address.] Nature, London, **68**, 1903, (452-458).

**Jacobs, J. C.** Diptères de la Belgique. Bruxelles, Ann. Soc. ent. Belgique, **47**, 1903, (356-357).

**Lotter, J. W.** Katechismus der Bienenzucht. 6 Aufl. Nürnberg (F. Korn), 1903, (IV + 234). 18 cm. 1,60 M.

#### 4607 STRUCTURE.

##### GENERAL.

**Ducke, Adolf.** *Bothynostethus*, neotropicalische Arten. Wien, Verh. ZoolBot. Ges., **52**, 1902, (575-580).

**Kohl, Franz Friedrich.** Zur Kenntnis der palaearktischen *Diodontus*-Arten. l.c. **51**, 1901, (120-134, mit 1 Taf.).

**Morice, F. D.** Help-notes towards the determination of British *Tenthredinidae*. Ent. Mag., London, **39**, 1903, (9-14, 47-54, 114-119, 187-193, 242-245, 275-277).

**Wheeler, William Morton.** Extraordinary females in three species of *Formica*, with remarks on mutation in the *Formicidae*. New York, N.Y., Bull. Amer. Mus. Nat. Hist., **19**, 1903, (639-651). Separate. 24.5 cm.

——— and **McClendon, J. F.** Dimorphic queens in an American ant (*Lasius latipes* Walsh) [with biblio-

graphy]. Austin, Cont. Zool. Lab. Univ. Tex., No. 46, in Wood's Holl, Mass., Mar. Biol. Lab. Bull., 4, 1903, (149-163).

## COMPARATIVE ANATOMY.

**Biaschop van Tuinen, K.** Die Sägewerkzeuge der Cimbicini [vergleichend dargestellt]. (Holländisch) 's Gravenhage, Tijdschr. Ent., 46, [1903], (58-64, 3 Taf.).

## NERVOUS SYSTEM.

**Schenk, Otto.** Die antennalen Hautsinnesorgane einiger Lepidopteren und Hymenopteren mit besonderer Berücksichtigung der sexuellen Unterschiede. Zool. Jahrb., Jena, Abt. f. Anat., 17, 1903, (573-618, mit 2 Taf.).

## ALIMENTARY SYSTEM.

**Abonyi, Sándor.** Histologie des Ernährungssystems. *Apis mellifica*. Allatt. Közlem., Budapest, 2, 1903, (137-168, mit Taf. XI-XIV).

**Bugnion, E.** Recherches histologiques sur le tube digestif du *Xylocopa violacea*. Aarau, Verh. Schweiz. Natf. Ges., 85, 1902, (76); Arch. Sci. Phys., Genève, (sér. 4), 14, 1902, (531-534).

— Tube digestif de *Xylocopa*. Arch. Sci. Phys., Genève, (sér. 4), 15, 1903, (92-93).

## SPECIAL GLANDS.

**Dreyling, L.** Ueber die wachsbereitenden Organe der Honigbiene. Zool. Anz., Leipzig, 26, 1903, (710-715).

## REPRODUCTIVE ORGANS.

**Biaschop van Tuinen, K.** Die Sägewerkzeuge der Cimbicini [vergleichend dargestellt]. (Holländisch) 's Gravenhage, Tijdschr. Ent., 46, [1903], (58-64, 3 Taf.).

**Holliday, Margaret.** A study of some ergatogynic ants. Zool. Jahrb., Jena, Abt. f. Syst., 19, 1903, (293-328).

(N 2-9053)

## 4611 PHYSIOLOGY.

## GENERAL.

**Dickel, Ferd.** Hat die Biene Eigenwärme und welche? D. ill. Bienenztg, Leipzig, 19, 1902, (50-52).

**Wheeler, W. M.** Notices biologiques sur les fourmis mexicaines. Bruxelles, Ann. Soc. ent. Belgique, 45, 1901, (199-205).

## PARTHENOGENESIS.

**Bachmetjew, P.** Ein Versuch, die Frage über die Parthenogenese der Drohnen mittels der analytisch-statistischen Methode zu lösen. Allg. Zs. Ent., Neudamm, 8, 1903, (37-44).

**Benetti, V.** Ricerche biologiche sui Bombi. Mon. zool. ital., Firenze, 13, 1902, (Supplemento), (38-40).

**Buttel-Reepen, H. von.** Die Parthenogenese bei der Honigbiene. Natur u. Schule, Leipzig, 1, 1902, (230-239).

**Petrunkewitsch, Alexander.** Das Schicksal der Richtungskörper im Drohnenei. Ein Beitrag zur Kenntniss der natürlichen Parthenogenese. Zool. Jahrb., Jena, Abt. f. Anat., 17, 1903, (481-516, mit 3 Taf.).

**Wheeler, W. M.** The origin of female and worker ants from the eggs of parthenogenic workers. Science, New York, N.Y., (N. Ser.), 18, 1903, (830-833).

## HERMAPHRODITISM.

**Morice.** Gynandromorph *Osmia*. London, Proc. Ent. Soc., 1903, (6).

## PRODUCTION OF SEX.

**Dickel, Ferd.** Einiges über meine Theorie der Geschlechtsbildung. [In: Kalender für deutsche Bienenfreunde, hrg. v. O. Krancher.] Leipzig, 1903, (108-111).

— Die neueste Entwicklungsphase meiner Lehre. D. ill. Bienenztg, Leipzig, 20, 1903, (174-177).

**Kipping, [Sebastian Josef].** Der gegenwärtige Standpunkt meiner Entwicklungstheorie der Honigbiene. (Zu Ferdin. Dicks Aufsatz in Bd 16 d. Ztg.) Natw. Wochenschr., Jena, 18, 1903, (313-315).



## PRODUCTION OF CASTE.

**Benetti, V.** *Bombus*, ricerche biologiche. Mon. zool. ital., Firenze, **13**, 1902, (Supplemento), (38-40).

## FUNCTION OF SENSE ORGANS.

**Büttel-Reepen, von.** Ueber die Bedeutung der Stirn- und der Seitenaugen bei der Honigbiene. Bienenwirtsch. Centrbl., Hanover, **39**, 1903, (322-325).

## FUNCTION OF SPECIAL STRUCTURES.

**Ducke, A.** Biologische Notizen über einige südamerikanische Hymenoptera. Allg. Zs. Ent., Neudamm, **8**, 1903, (368-372).

## ASSIMILATION.

**Brünnich.** Der Magen der Honigbiene. Schweiz. Bienenztg, Aarau, **25**, 1902, (208-217, mit 1 fig.).

## EXPERIMENTAL PHYSIOLOGY.

**Forel, Aug[uste] et Dufour, H.** La sensibilité des fourmis à l'action de la lumière ultra-violette et à celle des rayons Röntgen. Aarau, Verh. Schweiz. Natf. Ges., **85**, 1902, (81-82); Arch. Sci. Phys., Genève, (sér. 4), **14**, 1902, (558-559).

## 4615 DEVELOPMENT.

## GENERAL.

**Brünnich.** Der Eierstock der Bienenkönigin. Schweiz. Bienenztg, Aarau, **25**, 1902, (417-420).

**Coupin, Henri.** Les Bembes. Nature, Paris, (1<sup>er</sup> sem.), **31**, 1903, (65-67, av. fig.).

———. Les hyménoptères parasites. L.c. (297-299, av. fig.).

**Fernald, H. T.** The plum webbing saw-fly (*Lyda rufipes*). Philadelphia, Pa., Fnt. News Acad. Nat. Sci., **14**, 1903, (298-302).

**Goodchild, J. G.** Ants in relation to flowers. Edinburgh, Trans. Nat. Soc., **5**, 1903, (10-23).

**Lewis, E. J.** The oak galls and gall insects of Epping Forest. Pt. 1. Stratford, Essex Nat., **12**, 1903, (267-286). Pt. II. Descriptive and faunistic, ib., **13**, 1903, (138-160, incomplete).

**Pierre, Abbé.** Sur l'évolution de *Lixus iridis* Oliv. et de Chalcidides parasites de l'œuf, de la larve et de l'image. Echange, Lyon, **19**, 1903, (108-110, 116-117, 132-133, 141-144).

**Zaviel, Jan.** . . . Entwicklung der Stemmata von *Vespa*. . . . Prag, Sitzber. Böhm. Ges. Wiss., **1902**, No. XIII, 1903, (36, mit 3 Taf.).

## SPERMATOGENESIS.

**Möves, Friedr.** Ueber „Richtungskörperbildung“ im Hoden von Hymenopteren. Anat. Anz., Jena, **24**, 1903, (29-32).

———. Richtungskörperbildung in der Spermatogenese. Kiel, Mitt. Ver. schlesw.-holst. Aerzte, (N.F.), **11**, 1903, (240-241).

## EMBRYOLOGY.

**Petrunkewitsch, Alexander.** Das Schicksal der Richtungskörper im Drohnen. Ein Beitrag zur Kenntniss der natürlichen Parthenogenese. Zool. Jahrb., Jena, Abt. f. Anat., **17**, 1903, (481-516, mit 3 Taf.).

## METAMORPHOSIS AND LARVAL FORMS.

**Florentin, R.** Note sur une larve de Tenthrede du noisetier et du bouleau. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (105-107, av. fig.).

**Giard, Alfred.** Larve des feuilles du noisetier. L.c. (52).

———. Larve de Tenthrede du noisetier et du bouleau [réponse à M. R. Florentin]. L.c. (133).

**Pérez, C.** Contribution à l'étude des métamorphoses. Bul. sci. France-Belgique, Paris, **37**, 1903, (195-427, av. fig. et 3 pls.); Thèse fac. sci. Lille, 1902, (240, av. 3 pls.). 29 cm.

**Pomerancev, D. V.** Beitrag zur Kenntnis der auf der Fichte (*Picea excelsa*) lebenden schädlichen und nützlichen Insecten. (Russ.) St. Petersburg, Izv. Lén. Inst., **8**, 1902, (3-25, mit 1 Taf.).

**Saakov.** Ueber die künstliche Vermehrung des Parasiten der Eier der Getreidewanze (*Eurygaster integriceps* Orch.) (Russ.) Trd. B. entom. Učen. Kom. M. Zeml., St. Petersburg, **IV**, No. 2, 1903, (12).

**Vassiljev, I. V.** Der Baumweissling (*Aporia crataegi* L.) und dessen Parasiten. (Russ.) l.c. **III**, No. 8, 1902, (36, mit 16 Fig.).

## 4619 ETHOLOGY.

### GENERAL.

**Barker, E. E.** The bell-ants of Victoria. Vict. Nat., Melbourne, **20**, 1903, (105-111).

**Barthélemy, N.** Moyen d'expulser les larves de mâles des rayons. Rev. Internat. Apicult., Nyon, **25**, 1903, (207-208).

**Bloesch, C.** Einige Notizen über Cynipiden und Chalcidier aus der Umgegend von Laufenburg. Schaffhausen, Mitt. Schweiz. Entomol. Ges., **11**, 1903, (46-55).

**Braodicourt, Virgile.** Pucerons et fourmis. Nature, Paris, **30**, (2<sup>e</sup> semest.), 1902, (202).

**Büttel-Reepen, von.** Aus dem Leben der Honigbiene. Allg. Zs. Ent., Neudamm, **8**, 1903, (453-457).

**Coupin, Henri.** Les Dembex. Nature, Paris, (1<sup>er</sup> sem.), **31**, 1903, (65-67, av. fig.).

**Escherich, K[arl].** Ueber die Biologie der Ameisen. Uebersicht über die neueren Arbeiten. Zool. Centralbl., Leipzig, **10**, 1903, (209-250).

**Everett, J. D.** On the mathematics of bees' cells. London, Proc. Physic. Soc., **18**, 1903, (510-513).

**Faas, H[enri].** (Détails sur la biologie des Hyménoptères. La perforation des métaux). Lausanne, Bull. Soc. Sci. Nat., (sér. 4), **39**, 1903, (III-IV); Arch. Sci. Phys., Genève, (sér. 4), **15**, 1903, (214-215).

(N 2-9053)

**Fielde, Adele M[arion].** Notes on an ant [*Stenamma fulvum piceum*]. Philadelphia, Pa., Proc. Acad. Nat. Sci., **54**, 1902, [1903], (599-625).

——— Supplementary notes on an ant. [*Stenamma fulvum piceum*]. l.c. **55**, 1903, (491-495).

——— Experiments with ants induced to swim. l.c. (617-624).

**Fischer, E[duard].** *Myrmecodia echinata* (aus Sumatra). Bern, Mitt. Natf. Ges., **1903**, (XI).

**Florentin, R.** Note sur une larve de Tenthrede du noisetier et du bouleau. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (105-107, av. fig.).

**Foral, Aug[uste].** Recherches biologiques récentes de Miss Adèle Fielde sur les fourmis. Lausanne, Bul. Soc. Sci. Nat., (sér. 4), **39**, 1903, (95-99).

——— The social life of ants. [Translated by F. C. de Sumichrast.] Int. Mon., Burlington, Vt., **5**, 1902, (563-579, 710-724).

**Giard, Alfred.** Larve des feuilles du noisetier. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (52).

——— Larve de Tenthrede du noisetier et du bouleau [réponse à M. R. Florentin]. l.c. (133).

**Höppner, Hans.** Weitere Beiträge zur Biologie nordwestdeutscher Hymenopteren. [*Caenocryptus bimaculatus* Grv.] Allg. Zs. Ent., Neudamm, **8**, 1903, (194-202).

**Masterlinck, Maurice.** The wrath of the bee. Harper's Monthly Magazine, New York and London, **105**, 1902, ([467]-469).

——— Das Leben der Bienen. Autorisierte Ausg. in das Deutsche übertragen von Friedrich v. Oppeln-Bronikowski. 2. erweit. Aufl. Leipzig (E. Diederichs), 1903, (264). 20 cm. 4,50 M.

**Maupy, L.** La charge de l'abeille. Rev. Internat. Apicult., Nyon, **24**, 1902, (32-33).

**Morley, Claude.** Ichneumonologia britannica. The Ichneumons of Great Britain. A descriptive account of the families, genera and species indigenous to the British Islands, together with notes as to classification, localities,

habitats, hosts, &c., Ichneumoninae. Plymouth, 1903, (1 + 315, 1 pl.). 8vo.

**Pic, M.** Notes hyménoptérologiques. Echange, Lyon, 17, 1902, (38).

**Rod, Edouard.** Masterlinck's essay on the life of bees [Translated by . . . F. C. de Sumichrast]. Int. Mon., Burlington, Vt., 5, 1902, (431-447).

**Rothney, G. A. J.** The Aculeate Hymenoptera of Barrackpore, Bengal. London, Trans. ent. Soc., 1903, (93-116).

**Rucker, Augusta.** A glimpse of the life history of *Mutilla vesta* Cresson. Austin, Cont. Zool. Lab. Univ. Tex., No. 44, in Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (75-77).

**Rudow.** Zwei Insektenbauten aus Ceylon. Insektenbörse, Leipzig, 20, 1903, (164).

Einige Insektenbauten. l.c. (259-260, 269-270).

#### HABITS.

**Barthélemy, U.** Une reine qui change de domicile. Rev. Internat. Apicult., Nyon, 24, 1902, (197-198).

**Bouvier, E. L.** Quelques observations sur les insectes mellifères et leurs rapports avec les fleurs. Bul. Muséum, Paris, 1903, (192-196); Naturaliste, Paris, (sér. 2), 25, 1903, (147-148).

**Brues, Charles T.** On the sleeping habits of some aculeate Hymenoptera. New York, N.Y., J. Ent. Soc., 11, 1903, (228-230).

**Coupin, Henri.** Les Bembex. Nature, Paris, 31, (1<sup>er</sup> semest.), 1903, (65-67, av. 2 fig.).

**Crépieux-Jamin, J.** Les essaims naturels. Rev. Internat. Apicult., Nyon, 25, 1903, (129-131).

**Fielde, Adele M[arion].** Artificial mixed nests of ants. Woods Holl, Mass., Mar. Biol. Lab. Bull., 5, 1903, (320-325).

**Foral, August.** Fourmis termitophages, lestobiose, *Atta tardigrada*, sous-genres d'*Euponera*. Bruxelles, Ann. Soc. ent. Belgique, 45, 1901, (389-398).

**Friese, H.** Ueber eine Koloniebildung bei der Mörtelbiene. (*Chalicodoma muraria* Retz.) Allg. Zs. Ent., Neudamm, 8, 1903, (313-315).

**Goeken, F.** Eigentümliche Schwarm-angelegstellen [der Honigbiene]. Bienenwirthsch. Centrabl., Hannover, 38, 1902, (357-358).

Warum werden die Königinzellen senkrecht angelegt? l.c. 39, 1903, (52).

**Goodchild, J. G.** Ants in relation to flowers. Edinburgh, Trans. Nat. Soc., 5, 1903, (10-23).

**Hamlyn-Harris, R.** The stingless bees of North and South America considered in the light of domestication. Ent. Rec., London, 15, 1903, (99-100).

**Johnson, S. Arthur.** Nests of *Agencia architecta* Say. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (290).

**Karavajev, V.** Sur l'observation des fourmis dans des nids en plâtre artificiels. (Russ.) Rev. Russ. Ent., Jaroslavl, 3, 1903, (94-98, 174-176).

**Kieffer, J. J.** Zur Lebensweise einiger *Synergus*-Arten. Allg. Zs. Ent., Neudamm, 8, 1903, (122-123).

**Kulagin N[ikolaj].** Aus dem Leben der Bienen. l.c. (395-397).

**Lameere, Aug.** Note sur les mœurs des fourmis du Sahara. Bruxelles, Ann. Soc. ent. Belgique, 46, 1902, (160-169).

**McLachlan.** [*Megachile* and flowers.] Ent. Mag., London, 39, 1903, (255).

**Nielsen, T. C.** Note on the life-history of *Perisemus fulvicornis* Curb. (Danish with an English summary) Kjøbenhavn, Ent. Medd., (Ser. 2), 2, 1903, (105-109).

**Picard, F.** Mœurs de l'*Ammophila tydei* Guill. Feuille jeunes natural., Paris, (sér. 4), 34, 1903, (15-17).

**Plateau, Felix.** Note sur les erreurs commises par les hyménoptères visitant les fleurs. Bruxelles, Ann. Soc. ent. Belgique, 46, 1902, (113-120).

**Pomerancev D[mitrij Vladimirovitch].** Beitrag zur Kenntnis der auf der Fichte (*Picea excelsa*) lebenden schädlichen und nützlichen Insecten. (Russ.) St. Petersburg, Izv. Leśn. Inst., 8, 1902, (3-25, mit 1 Taf.).

**Rothe, H. H.** Das Leben der Hummeln. Natw. Wochenschr., Jena, 18, 1903, (457-462).

**Saakov.** Ueber die künstliche Vermehrung des Parasiten der Eier der

Getreidewanze (*Eurygaster integriceps* Orch.) (Russ.) Trd. B. entom. Učen. Kom. M. Zeinl., St. Petersburg, IV. No. 2, 1903, (12).

Sargent, Frederick Le Roy. Plants that keep a body-guard. Plant World, Washington, D.C., 6, 1903, (103-105).

Stebbing, E. P. Insect pests of the sugar cane in India, *Dorylus orientalis* Westw. Calcutta, Ind. Mus. Notes, 5, 1903, (77).

Thijssse, Jac[obus] P[ieter]. Les insectes qui visitent le nénuphas blanc (*Nymphaea alba* L.). (Holländisch) De Levende Natuur, Amsterdam, 7, 1903, (120-121, av. fig.).

Wasilkowski, W. Les principes géométriques de la structure des cellules des abeilles. (Polonais) Muzeum, Lwów, 19, 1903, (896-899).

Weith, R. J. Curious habits of certain Hymenoptera [embodying notes by F. S. Daggett on the alighting of Hymenoptera on surface of water]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (90).

Wheeler, W[illiam] M[orton] and McClendon, J. F. Dimorphic queens in an American ant (*Lasius latipes* Walsh) [with bibliography]. Austin, Cont. Zool. Lab. Univ. Tex., No. 46, in Wood's Holl, Mass., Mar. Biol. Lab. Bull., 4, 1903, (149-163).

Yung, Emile. Combien y a-t-il de fourmis dans une fourmilière (*Formica rufa*)? Chasse et pêche, Bruxelles, 1901, (295-297).

#### HIBERNATION.

Frohawke, F. W. Attitude of hibernating wasp. Entomologist, London, 36, 1903, (33-34).

Kaempfer, Rich. Das Bienenleben im Winter. D. ill. Bienenztg, Leipzig, 19, 1902, (3-5).

Ljungström, J[ohn] A[lbert]. Bees in winter-time. (Swedish) Stockholm, 1901, (156, with pl.). 18 cm.

Pack Beresford. [Hibernating position of the wasp.] Irish Nat., Dublin, 12, 1903, (167).

#### PARENTAL RELATIONS.

Wasmann, E[rich]. Zur Brutpflege der blutroten Raubameise (*Formica sanguinea* Ltr.). Insektenbörse, Leipzig, 20, 1903, (275-276).

#### SEXUAL RELATIONS.

Bulman, G. W. The constancy of the bee. Zoologist, London, (Ser. 4), 6, 1902, (220-222).

Carpenter, G. H. and Pack-Beresford, D. R. The relationship of *Vespa austriaca* to *Vespa rufa*. Ent. Mag., London, 39, 1903, (230-242, pl. IV); Irish Nat., Dublin, 12, 1903, (221-238, pl. II).

Dadant, C. P. La fécondité des faux-bourbons. Rev. Internat. Apicult., Nyon, 25, 1903, (61-64).

Goeken, F. Zur Befruchtung der Königinnen. Bienenwirtsch. Centrabl., Hannover, 39, 1903, (310).

Kaempfer, R. Gedanken über die Drohnenschlacht. l.c. 38, 1902, (358-360).

Plateau, Félix. Observations sur le phénomène de la constance chez quelques hyménoptères. Bruxelles, Ann. Soc. ent. Belgique, 45, 1901, (56-83).

Sharp, D. *Vespa rufa* + *austriaca*. Ent. Mag., London, 39, 1903, (297-299).

Taillandier. Les abeilles pourraient-elles transformer des larves d'ouvrières en mâles? Rev. Internat. Apicult., Nyon, 24, 1902, (155-156).

#### OVIPOSITION.

Brünnich. Der „Nestduft“ bei den Insekten, speciell bei den Bienen. Schweiz. Bienenztg, Aarau, 25, 1902, (476-479).

Burfeind, H. Aus dem Leben der Honigbiene. [Eiablage d. Königin.] Aus d. Heimat, Bremerhaven, 1902-03, 1903, (38).

Du Buysson, R. Nidification de quelques Mégachiles. Paris, Ann. soc. ent., 71, (2<sup>e</sup> semest.), 1902, [1903], (751-755).

**Ducke, A.** Biologische Notizen über einige südamerikanische Hymenopteren. Allg. Zs. Ent., Neudamm, **8**, 1903, (368–372).

**Foral, A[uguste].** Die Sitten und Nester einiger Ameisen der Sahara bei Tugurt und Biskra. Beobachtet von Dr. August Diehl. Schaffhausen, Mitt. Schweiz. Entomol. Ges., **10**, 1903, (453–459).

**Gubler, Ulr.** Une reine qui ne pond que des oeufs stériles. Rev. Internat. Apicult., Nyon, **24**, 1902, (149).

**Höppner, H[ans].** Beiträge zur Biologie nordwestdeutscher Hymenopteren. Aus d. Heimat, Bremerhaven, **1901–02**, 1903, (36–38).

**Israël, W.** Ein Ephialtesweibchen bei seiner Eiablage. Gera, Jahresber. Ges. Natk., **43–45**, (1900–02), 1903, (82–84).

**Kopp, C.** Ueber die Wohnungen deutscher Hautflügler. Stuttgart, Jahresschäfte Ver. Natk., **59**, 1903, (LVII–LX).

**Reber, D.** Uebertragung von Bieneiern aus bestifteten Zellen in leere Zellen durch die Arbeitsbienen. Schweiz. Bieneuztg, Aarau, **25**, 1902, (273–276).

**Rey, Eugène.** Zur Eiablage von *Lophyrus pini*. Insektenbörse, Leipzig, **20**, 1903, (268).

**Rudow.** Verzeichnis der Nester bauenden Hautflügler, Hymenoptera, Europas. Ent. Jahrb., Leipzig, **12**, 1903, (182–209).

— Einige ausländische Insektenbauten. Insektenbörse, Leipzig, **20**, 1903, (19).

**Vassiljev, I. V.** Der Baumweissling (*Aporia crataegi* L.) und dessen Parasiten. (Russ.) Trd. B. entom. Ucen. Kon. Zeml., St. Peterburg, **III**, No. 8, 1902, (36, mit 16 fig.).

**Waterhouse, C. O.** Notes on the nests of bees of the genus *Trigona*. London, Trans. ent. Soc., **1903**, (133–136, pl. VI).

#### INSTINCT AND PSYCHOLOGY.

**Ferton, Ch.** Notes détachées sur l'instinct des hyménoptères mellifères et ravisseurs (2<sup>e</sup> série), avec la description d'une nouvelle espèce. Paris, Ann. soc.

ent., **71**, (2<sup>e</sup> semest.), 1902, (499–531, av. 1 pl.).

**Hilgendorf.** On a supposed magnetic sense of direction in bees. Wellington, Trans. N. Zeal. Inst., **35**, 1903, (482–489).

**Krausse, A. H.** Erkennen Ameisen einer Kolonie andere, derselben Art angehörenden, aber aus einer anderen Kolonie stammenden Ameisen? Nerthus, Altona, **5**, 1903, (7–8).

**Stäger, Rob.** Beobachtungen über Insekteneinbruch und Honigraub an Blüten mit tiefegeborgnem Nektar. Natur u. Offenb., Münster, **48**, 1902, (234–236).

#### SOCIAL RELATIONS.

**Bouvier.** La vie des abeilles. Bul. Inst. psych. internat., Paris, **2**, 1902, (88–105).

**Buttel-Reepen, H. von.** Die stammesgeschichtliche Entstehung des Bienenstaates sowie Beiträge zur Lebensweise der solitären u. sozialen Bienen (Hummeln, Meliponinen etc.) Vortrag . . . Stark erweitert, mit Anm. u. Zusätzen hrsg. Leipzig (G. Thieme), 1903, (XII + 138). 23 cm. 2,40 M.

**Fiedle, Adele M[arion].** A cause of feud between ants of the same species living in different communities. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **5**, 1903, (326–329).

**Gerstung, F.** Der Bienenstaat. Glauben u. Wissen, Stuttgart, **1**, 1903, (183–190, 221–228).

**Thering, H. von.** Biologie der stachellosen Honigbienen Brasiliens. Zool. Jahrb., Jena, Abt. f. Syst., **19**, 1903, (179–287, mit 13 Taf.).

**Thering, Rodolpho von.** Zur Frage nach dem Ursprung der Staatenbildung bei den sozialen Hymenopteren. Zool. Anz., Leipzig, **27**, 1903, (113–118).

— Biologische Beobachtungen an brasilianischen *Bombus* Nestern. Allg. Zs. Ent., Neudamm, **8**, 1903, (447–453).

**Metze, Oskar.** Ein Bienenschwarm im Platzregen. Aus d. Heimat, Stuttgart, **16**, 1903, (69).

**Stachelhausen, L. von.** Vererbung bei den Bienen. D. Bieneuzucht, Freiburg i. B., **11**, 1903, (21–23).

## SYMBIOSIS.

**Ozeraki**, Stanisław. Nouvelles recherches sur la myrmécophilie. (Polonais) Wszechświat, Warszawa, **22**, 1903, (308-311).

**Escherich**, K[arl]. Beiträge zur Kenntnis der Thysanuren. Reihe I. Zool. Anz., Leipzig, **26**, 1903, (345-366).

**Howard**, L[eland] O[ssian]. On the habits of *Entilia sinuata* [in relation to ants]. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **30**, 1901, (75-78).

**Kolbe**, H. J. Myrmekophile Insekten, speciell *Thorictus foreli* Wasm. Berlin, SitzBer. Ges. natf. Freunde, **1903**, (237-253).

**Melander**, Axel Leonard and **Brues**, Charles Thomas. Guests and parasites of the burrowing bee *Halictus* [nn. spp. of Diptera and Hymenoptera]. Wood's Holl, Mass., Mar. Biol. Bull., **5**, 1903, (1-27, with text-fig.).

**Oudemans**, A. C. Symbiose von *Coptorthosoma* und *Greenia*. Eine Prioritätsfrage. Zool. Anz., Leipzig, **27**, 1903, (137-139).

**Quail**, A. A fly and a spider. (*Salix monachus* and *Porrhothele antipodiana*). Wellington, Trans. N. Zeal. Inst., **35**, 1903, (256-268).

**Viehmeier**, H. Kleinere Beiträge zur Biologie einiger Ameisengäste. Allg. Zs. Ent., Neudamm, **8**, 1903, (15-17).

**Wasmann**, E[rich]. Zum Mimicrytypus der Dorylinengäste. (135. Beitrag zur Kenntnis der Myrmecophilen und Termitophilen.) Zool. Anz., Leipzig, **26**, 1903, (581-590).

## PARASITISM.

Parasitic Hymenoptera. [Translated from La Nature.] Sci. Amer. Sup., New York, N.Y., **55**, 1903, (22952).

**Signell**, G. C. British oak galls. Falmouth, Rep. R. Cornwall Polyt. Soc., **1902**, (72-93).

**Coupin**, Henri. Les Hyménoptères parasites. Nature, Paris, (1<sup>er</sup> sem.), **31**, 1903, (297-299, av. fig.).

**Dambach**. Die Bienenlaus. Schweiz. Bienenztg. Aarau, **25**, 1902, (447-449).

**Dorr**, Emile. Rareté des lépidoptères. Abondance de parasites. Feuille jeunes natural., Paris, (sér. 4), **34**, 1903, (38).

**Eckel**, Lida S. The resin-gnat *Diplosis* and three of its parasites. Philadelphia, Pa., Ent. News Acad. Nat. Sci., Amer. Ent. Soc., **14**, 1903, (279-284, with pl.).

**Kulwiec**, K. Parasites des insectes. (Polonais) Wszechświat, Warszawa, **22**, 1903, (213-217, 246-249).

**Lambotte**, Ul. Recherches sur le microbe de la "Loque," maladie des abeilles. Ann. Inst. Pasteur, Paris, **16**, 1902, (694-704).

**Mariatt**, C[harles] L[ester]. A Chalcidid parasite [*Syntomosphyrum caurus*] of the Asiatic lady-bird [*Chilocorus similis*] [with note by Mr. L. O. Howard]. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (138-139).

**Mosville**, Lionel de (the late). Insect pests of fruit trees. [*Eurycephalus alcocki* Green, parasitic on *Ceroptastes floridensis* Comst. (a fruit pest.)] Calcutta, Ind. Mus. Notes, **5**, 1903, (117-127, with pls.).

———. Insect pests of the sugar cane. [*Apanteles scirpophagae* Ashm., *Bracon nicevillii* Bingham, *Goniozus indicus* Ashm., *Pimpla praedator* Fabr. var., all parasitic on *Scirpophaga auriflua* (a sugar cane pest)]. l.c. (164-182, with pls.).

**Nielsen**, T. C. Observations on the life history of some Danish forestal wasps. (Danish) Kjöbenhavn, Ent. Medd., (Ser. 2), **2**, 1903, (110-114).

**Nilsen**, J. C. Ueber die Entwicklung von *Bombylius pumilus* Meig. einer Fliege, welche bei *Colletes daviesana* Smith schmarotzt. Zool. Jahrb., Jena, Abt. f. Syst., **18**, 1903, (647-658, mit 1 Taf.).

**Perraudière**, R. de la. Note sur *Coroebus fasciatus* Vill. — *bifasciatus* Ol. et ses parasites. Paris, Bul. soc. ent., **1902**, (251-253).

**Pierre**, abbé. Sur l'évolution de *Lixus iridis* Oliv. et de Chalcidides parasites de l'œuf, de la larve et de l'imag. Echange, Lyon, **19**, 1903, (108-110, 116-117, 132-133, 141-144).

**Saunders, E.** On the relationship of Aculeateinquilines and their hosts. Ent. Mag., London, **39**, 1903, (272-274).

**Schirmer, C.** *Ibalia cutellator* Ltr. and *Ibalia schirmeri* Kff., Schmarotzer bei *Sirex jurensis* L. Soc. Entomol., Zürich, **18**, 1903, (121-122).

**Serebriankov, A. V.** Ueber den grossen Kiefernspinner (*Gastropacha pini*). (Russ.) St. Petersburg, Izv. Lén. Inst., **7**, 1901, (29-101, mit 1 Taf.).

**Webster, F. M.** Some insect inhabitants of the stems of *Elymus canadensis*. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., No. **40**, 1903, (92-93).

#### DEFENSIVE PROCESSES.

**Wender, Adolf.** Eine merkwürdige Eigenschaft des Bienenstachels. Aus d. Heimat, Stuttgart, **18**, 1903, (106).

#### UTILITY AND HARMFULNESS.

**Marchand, Ernest.** Inventaire des Tenthredinides [sic] ou mouches à scie (Hymenoptera-Chalastogastra) recueillies aux environs de Nantes, suivi de notices sur quelques espèces particulièrement nuisibles. Nantes, Bul. soc. sci. nat., (sér. 2, **2**), **12**, 1902, (233-296).

**Noel, P.** Les ennemis des abeilles. Naturaliste, Paris, (sér. 2), **24**, 1902, (70-71, 87, 96-97).

**Pomerancev, D. V.** Beitrag zur Kenntnis der auf der Fichte (*Picea excelsa*) lebenden schädlichen und nützlichen Insecten. (Russ.) St. Petersburg, Izv. Lén. Inst., **8**, 1902, (3-25, mit 1 Taf.).

**Rodigas, Edgar.** Contre les fourmis. Bruxelles, Bul. Soc. roy. linn., **1902**, No. 7.

**Rohrbacher, Al.** Wirkungen von Bienenstichen. D. ill. Bienenztg, Leipzig, **20**, 1903, (56-57).

**Wendelen, Ch.** Une fourmi incommode et d'une destruction difficile. Chasse et pêche, Bruxelles, **1901**, (782).

#### PATHOLOGY.

Die Faulbrut der Bienen. Schweiz. Landw. Centralbl., Frauenfeld, **21**, 1902, (343-347). [4631].

#### 4623 VARIATION AND ETIOLOGY.

##### GENERAL.

**Castool, D. B. and Phillips, E. F.** Comparative variability of drones and workers of the honey bee [*Apis mellifica*]. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **6**, 1903, (18-37, with text-fig.).

**Frey-Gessner, E.** Die Männchen der *Anthrena aeneiventris* Mor., *incisa* Evers. *parviceps* Krchb. und *rogenhoferi* Mor. Schaffhausen, Mitt. Schweiz. Entomol. Ges., **11**, 1903, (40-45).

**Wheeler, William Morton.** Extraordinary females in three species of *Formica*, with remarks on mutation in the *Formicidae*. New York, N.Y., Bull. Amer. Mus. Nat. Hist., **19**, 1903, (639-651).

Some new gynandromorphous ants, with a review of the previously recorded cases. [With bibliography.] *L.c.* (653-683).

#### TERATOLOGICAL VARIATION.

**Harting, George.** Auffälliges Naturspiel. [Beine statt der Antennen bei *Halictus* sp.] Zs. Hymenopter., Teschen-dorf, **3**, 1903, (208).

#### HEREDITY.

**Stachelhausen, L. von.** Vererbung bei den Bienen. D. Bienenzucht, Freiburg i. B., **11**, 1903, (21-23).

#### CROSSES AND HYBRIDS.

**Sharp, D.** *Vespa rufa* + *austriaca*. Ent. Mag., London, **39**, 1903, (297-299).

#### EVOLUTION.

**Buttel-Reepen, H. von.** Die stammesgeschichtliche Entstehung des Bienenstaates sowie Beiträge zur Lebensweise der solitären u. sozialen Bienen (Hummeln, Meliponinen etc.) Vortrag . . . Stark erweitert, mit Anm. u. Zusätzen hrsg. Leipzig (G. Thieme), 1903, (XII + 138). 23 cm. 2,40 M.

**Ihering, Rodolpho von.** Zur Frage nach dem Ursprung der Staatenbildung bei den sozialen Hymenopteren. Zool. Anz., Leipzig, **27**, 1903, (113-118).

## 4627 GEOGRAPHICAL DISTRIBUTION.

## a EARTH AS A WHOLE.

**Gaulle, J. de.** Un erratum au Catalogus Hymenopterorum de Dalla Torre. Feuille jeunes natural., Paris, (sér. 4), **34**, 1903, (26).

## d EUROPE.

## da SCANDINAVIA.

**Kryger, T. P.** The Danish trimerous *Chalcididae*. (Danish, with a German summary) Kjöbenhavn, Ent. Medd., (Ser. 2), **2**, 1903, (192-197).

**Nielsen, T. C.** Observations on the life-history of some Danish fossorial wasps. (Danish) *l.c.* (110-114).

**Strand, Embr.** Hymenopterologic contribution to the fauna of Norway. (Norw.) Kristiania, Forh. Vid. selsk., **1903**, No. 8, (8).

## db RUSSIA IN EUROPE.

**Konow, F. W.** Ueber neue oder wenig bekannte Tenthrediniden des Russischen Reiches und Centralasiens. St. Peterburg, Ann. Mus. zool. Ac. Sc., **8**, 1903, (115-132).

**Norman, A. M.** Notes on the natural history of East Finnmark. [Hymenoptera.] Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (166-173).

**Ruzsiki, M.** Die Ameisenfauna der Astrachanischen Kirgisensteppe. (Russ.) St. Peterburg, Hor. Soc. Ent. Ross., **36**, 1903, (294-316).

## dc GERMAN EMPIRE.

**Baer, W.** Zur Apiden-Fauna der Kurischen Nehrung. Allg. Zs. Ent., Neudamm, **8**, 1903, (157-161).

**Freierleben, Georg.** Unsere Ameisen. Aus d. Heimat, Stuttgart, **16**, 1903, (67-68).

**Heyden, I[ukas] von.** Beiträge zur Kenntnis der Hymenopteren-Fauna der weiteren Umgegend von Frankfurt a. M. [Tl IX: *Apidae*.] Frankfurt a. M., Ber. Senckenb. Ges., **1903**, Tl 2, (97-112).

**Höppner, Hans.** Weitere Beiträge zur Bienenfauna der Lüneburger Heide und Mitteilungen über das Vorkommen einiger Gold- und Faltenwespen daselbst. Aus. d. Heimat, Bremerhaven, **1901-1902**, 1903, (17-27).

**Spelser, P[aul].** Ergänzungen zu Czwalinas „Neuem Verzeichnis der Fliegen Ost- und Westpreussens“. II. Allg. Zs. Ent., Neudamm, **8**, 1903, (161-165).

## dd HOLLAND AND BELGIUM.

**Rossum, A. J. van.** . . . Eine für die niederländische Fauna neue Blattwespe [*Pteronus spiraeae*]. (Holländisch) s' Gravenhage, Tijdschr. Ent., **45**, 1903, (246-257, mit 1 Taf.).

## de BRITISH ISLANDS.

**Lewis, E. J.** The oak galls and gall insects of Epping Forest. Pt. I. Stratford, Essex Nat., **12**, 1903, (267-286). Pt. II. Descriptive and faunistic. *ib.*, **13**, 1903, (138-160, incomplete).

**Morley, C.** Insects, especially parasitic Hymenoptera, noticed in the New Forest in August, 1901. Ent. Mag., London, **39**, 1903, (25-29).

——— *Ichneumonologia britannica*. The Ichneumons of Great Britain. A descriptive account of the families, genera, and species indigenous to the British Islands, together with notes as to classification, localities, habitats, hosts, etc. *Ichneumoninae*. Plymouth, 1903, (1 + 315, 1 pl.).

**Morloe, F. D.** Help-notes towards the determination of British *Tenthredinidae*. Ent. Mag., London, **39**, 1903, (9-14, 47-54, 114-119, 187-193, 242-245, 275-277).

**Saunders, E.** *Odynerus (Hoplopus) similis* Mor., a wasp new to the British list. *l.c.* (6-7).

——— Hymenoptera Aculeata in Jersey, June, 1903. *l.c.* (245-248).

——— **Morloe, F. D. and Morley, C.** Hymenoptera collected by Colonel Yerbury in Herefordshire, 1902. *l.c.* (111-114).



**Willis, J. C. and Burkill, J. H.** Notes on the anthophilous insect fauna of the Clova mountains. *Ann. Scot. Nat. Hist., Edinburgh*, **1903**, (29-37, 99-102).

*df* FRANCE.

**Marchand, Ernest.** Inventaire des Tenthredinides [sic] ou mouches à scie (Hymenoptera-Chalastogastra) recueillies aux environs de Nantes, suivi de notices sur quelques espèces particulièrement nuisibles. Nantes, *Bul. soc. sci. nat.*, (sér. 2, 2), **12**, 1902, (233-296).

**Pic, M.** Notes hyménoptérologiques. *Echange*, Lyon, **17**, 1902, (38).

*di* SWITZERLAND.

**Bloesch, C.** Einige Notizen über Cynipiden und Chalcidier aus der Umgegend von Laufenburg. Schaffhausen, *Mitt. Schweiz. Entomol. Ges.*, **11**, 1903, (46-55).

**Forel, Auguste.** Faune myrmécologique des noyers dans le canton de Vaud. Lausanne, *Bul. Soc. Sci. Nat.*, (sér. 4), **39**, 1903, (83-94).

**Frey-Gessner, E.** Hyménoptères du Valais. *Bul. Murith., Aigle*, **31**, 1902, (21-80); **33**, 1903, (200-248).

——— Hymenoptera Helvetiae. Schaffhausen, *Mitt. Schweiz. Entomol. Ges.*, **10**, 1903, Beilage, (149-180); **11**, 1903, Beilage, (181-212).

*dk* AUSTRIA-HUNGARY.

**Schletterer, August.** Beitrag zur Hymenopteren-Fauna von Süd-Istrien. Wien, *Verh. ZoolBot. Ges.*, **51**, 1901, (215-220).

**Strobl, G.** Steiermarks Ichneumoniden. Graz, *Mitt. Natw. Ver. Steierm.*, **1902**, 1903, (3-100).

*dl* BALKAN PENINSULA.

**Pic, M.** Hyménoptères recueillis en Grèce. *Echange*, Lyon, **17**, 1902, (46).

**Sahlberg, John.** [Entomologische Forschungsreisen in den Mittelmeergegenden und Central-Asien]. (Schwedisch)

Helsingfors, *Öfvers. F. Vet. Soc.*, **45**, [No. 9], 1902-1903, (1-34); [No. 17], (1-38).

*dm* MEDITERRANEAN.

**Sahlberg, J.** Entomologische Forschungsreisen in den Mittelmeergegenden und Central-Asien. (Schwedisch) Helsingfors, *Öfvers. F. Vet. Soc.*, **45**, [No. 9], 1902-1903, (1-34); [No. 17], (1-38).

*e* ASIA.

*ea* ASIATIC RUSSIA.

**Kokujev, N. R.** Nouvelles espèces transcaspiennes de la sousfamille *Agathidinae*. (Russ.) St. Peterburg, *Hor. Soc. Ent. Ross.*, **36**, 1903, (240-247).

——— Hymenoptera asiatica nova I. *Rev. Russ. Ent.*, Jaroslavl, **3**, 1903, (285-288).

**Konow, F. W.** Ueber neue oder wenig bekannte Tenthrediniden des russischen Reiches und Centralasiens. St. Peterburg, *Ann. Mus. zool. Ac. Soc.*, **8**, 1903, (115-132).

**Rusakij, M.** Fourmis de la province Transbaicalienne. (Russ.) *Rev. Russ. Ent.*, Jaroslavl, **3**, 1903, (205-207).

——— Die Ameisen der Umgebungen des Aral-Sees. (Russ.) *Taškent, Izv. Turk. Otd. Russ. Geogr. Obsč.*, **3**, 1902, livr. I, (1-25).

*eb* CHINA.

**Konow, F. W.** Ueber neue oder wenig bekannte Tenthrediniden des russischen Reiches und Centralasiens. St. Peterburg, *Ann. Mus. zool. Ac. Sc.*, **8**, 1903, (115-132).

*ec* JAPANESE ISLANDS.

**André, Ernest.** Hyménoptères formidables récoltés au Japon, par M. Harmand. *Bul. Muséum, Paris*, **1903**, (128).

**Cameron, P.** Descriptions of ten new species and nine new genera of *Ichneumonidae* from India, Ceylon and Japan. *Entomologist*, London, **36**, 1903, (233-241, 260-261).

**Cameron, P.** Descriptions of four new species of *Vespa* from Japan. *l.c.* (278-281).

**Du Buysson, R.** Hyménoptères récoltés au Japon par M. J. Harmand. *Bul. Muséum, Paris, 1903*, (125-127).

**Konow, F. W.** Hyménoptères Tenthredinides récoltés au Japon par M. J. Harmand. *Bul. Muséum, Paris, 1903*, (128).

**Vachal, J.** Hyménoptères rapportés du Japon par M. Harmand. Mellifères (4<sup>e</sup> mémoire). *l.c.* (129-132).

#### ef BRITISH INDIA.

**Bingham, C. T.** The fauna of British India, including Ceylon and Burma. Published under the authority of the Secretary of State for India in Council. Edited by W. T. Blandford. Hymenoptera, Vol. II. Ants and Cuckoo-wasps. London, 1903, (xix + 506, 1 pl. and illustrs.). 8vo. [Review], *Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903*, (190-191).

**Cameron, P.** On some new genera and species of parasitic and fossorial Hymenoptera from the Khasia Hills, Assam. *l.c.* **11, 1903**, (173-185, 313-331).

——— On some new genera and species of parasitic Hymenoptera from the Khasia Hills, Assam. *l.c.* **12, 1903**, (266-272, 363-371, 565-583).

——— Descriptions of nineteen new species of *Laridae*, *Odynerus*, and *Apidae* from Barrackpore. London, *Trans. ent. Soc., 1903*, (117-132).

——— Descriptions of twelve new genera and species of *Ichneumonidae* (*Heresiarchini* and *Amblypygi*), and three species of *Ampulex* from the Khasia Hills, India. *l.c.* (219-238).

——— Descriptions of ten new species and nine new genera of *Ichneumonidae* from India, Ceylon and Japan. *Entomologist, London, 36, 1903*, (233-241, 260-261).

——— Hymenoptera orientalia, contributions to the knowledge of the Hymenoptera of the Oriental zoological

region. The Hymenoptera of the Khasia hills. Part 2, Section 2. Manchester, *Mem. Lit. phil. Soc., 47, No. 14, 1903*, (1-50).

**Cameron, P.** *Vespa germanica* F. in India. *Zs. Hymenopter., Teschendorf, 3, 1903*, (317).

**Forel, A[uguste].** Myrmicinae nouveaux de l'Inde et de Ceylon. *Rev. Suisse Zool., Genève, 10, 1902*, (165-249).

**Nurse, C[harles] G[eorge].** New species of Indian Hymenoptera. Bombay, *J. Nat. Hist. Soc., 15, 1903*, (1-18).

——— New species of Indian Aculeate Hymenoptera. *Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903*, (393-403, 511-526, 529-549).

——— New species of Indian *Chrysididae*. [Continuation.] *Entomologist, London, 36, 1903*, (10-12, 40-42).

**Rothney, G. A. J.** The Aculeate Hymenoptera of Barrackpore, Bengal. London, *Trans. Ent. Soc., 1903*, (93-116).

#### eg MALAY PENINSULA AND ARCHIPELAGO.

**Bingham, C. T.** Diagnoses of Aculeate Hymenoptera. Fascic. Malay. Zool., 2, App., (iii-vii).

**Friese, H.** Neue Arten der Bienen-gattung *Xylocopa* Latr. aus der neotropischen und orientalischen Region. *Zs. Hymenopter., Teschendorf, 3, 1903*, (202-208).

——— Neue *Megachile*-Arten des Sunda Archipel. *l.c.* (241-245, 349-359).

#### ei ASIATIC TURKEY, ARABIA.

**Sahlberg, J.** Entomologische Forschungsreisen in den Mittelmeergegenden und Central-Asien. (Schwedisch) Helsingfors, Öfvers. F. Vet. Soc., **45**, [No. 1], 1902-1903, (1-34); [No. 17], (1-38).

## ek CASPIAN.

**Ruzsiki, M.** Une nouvelle fourmi de la Transcaspienne. (Russ.) Rev. Russ. Ent., Jaroslavl, 3, 1903, (36-37).

## f AFRICA.

**Enderlein, Günther.** Neue und weniger bekannte africanische Xylocopen, besonders aus der Ausbeute des Freiherrn von Erlanger in Galla und Somali. Berliner ent. Zs., 48, 1903, (45-64).

**Friese, H.** Neue afrikanische *Megachile*-Arten. II. Zs. Hymenopter., Teschendorf, 3, 1903, (273-290).

## fa MEDITERRANEAN STATES.

**Forel, A[uguste].** Die Sitten und Nester einiger Ameisen der Sahara bei Tugurt und Biskra. Beobachtet von Dr. August Diehl. Schaffhausen, Mitt. Schweiz. Entomol. Ges., 10, 1903, (453-459).

**Sahlberg, J.** Entomologische Forschungsreisen in den Mittelmeergegenden und Central-Asien. (Schwedisch) Helsingfors, Öfvers. F. Vet. Soc., 45, [No. 9], 1902-1903, (1-34); [No. 17], (1-38).

## fb N.E. AFRICA.

**Enderlein, Günther.** Zwei neue ostafrikanische *Zeuzerania*-Arten. [Z. *globiceps* u. *Z. tenuistilus*.] Berliner ent. Zs., 48, 1903, (41-44).

**Morice, F. D.** New Hymenoptera Aculeata taken by the Swedish Zoological Expedition to Egypt and the White Nile in the spring of 1901. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (610-615).

**Sahlberg, J.** Entomologische Forschungsreisen in den Mittelmeergegenden und Central-Asien. (Schwedisch) Helsingfors, Öfvers. F. Vet. Soc., 45, [No. 9], 1902-1903, (1-34); [No. 17], (1-38).

## fc SAHARA AND FRENCH SOUDAN.

**Forel, A.** Les fourmis du Sahara algérien, récoltées par M. le professeur

A. Lameere, et le docteur A. Diehl. Bruxelles, Ann. Soc. Ent. Belgique, 46, 1902, (147-156).

## fd WEST AFRICA.

**Du Buysson, R.** Description d'une Polybie nouvelle d'Afrique. Paris, Bul. soc. ent., 1902, (253-254).

— Hyménoptères nouveaux du Congo. Bul. Muséum, Paris, 1902, (599-601).

## fe ANGOLA.

**Forel, A[uguste].** Einige neue Ameisen aus Süd-Angola. [In: Kunene-Sambesi-Expedition, hrg. v. P. Warburg.] Berlin, 1903, (559-564).

## ff EAST AFRICA.

**Kirby, W. F.** Hymenoptera. Ichneumonids, wasps and bees. [The number of species of Hymenoptera composing this fauna is considered to be probably very large, though only 44 are known.] Nat. Hist. Sokotra, (235-257, pls. XV, XVI).

## fg SOUTH AFRICA.

**Bingham, C. T.** On the Hymenoptera collected by Mr. W. L. Distant in the Transvaal, South Africa, with descriptions of supposed new species. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (46-49).

**Cameron, P.** Description of a new species of *Ammoplanus* (Hymenoptera) from South Africa. Entomologist, London, 38, 1903, (178).

**Friese, H.** *Meliturgula*, eine neue Bienengattung aus Süd-Afrika. Zs. Hymenopter., Teschendorf, 3, 1903, (33-34).

**Mayr, G.** . . . Südafrikanische Formiciden. Wien, Ann. NatHist. Hofmus., 16, 1901, (1-30, 2 Taf.).

## g NORTH AMERICA.

**Bruner, Lawrence.** Some notes on the bee genus *Andrena* [with table of North American species]. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., 29, 1903, (239-258).

**Cockerell**, T[heodore] D[ru] A[lison]. North American bees of the genus *Nomada*. Philadelphia, Pa., Proc. Acad. Nat. Sci., **55**, 1903, (580-614).

——— New American Hymenoptera, mostly of the genus *Nomada*. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (200-214).

——— North American bees and a new Homopteron. *l.c.* (442-455).

**Friese**, H. Neue Arten der Bienen-gattung *Megachile* [Blattschneiderbiene] aus Amerika. Zs. Hymenopter., Teschendorf, **3**, 1903, (246-248).

**Hamlyn-Harris**, R. The stingless bees of North and South America, considered in the light of domestication. Ent. Rec., London, **15**, 1903, (99-100).

#### gf UNITED STATES.

**Melander**, Axel Leonard. Notes on North American *Mutillidae*, with descriptions of new species. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (291-330, with pl.). Separate. 24 cm.

#### gg NORTH-EASTERN UNITED STATES.

**Viereck**, H. L. The home of some aculeate Hymenoptera [in New Jersey] with descriptions of two new species [of *Plenoculus*]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (71-74).

#### gh SOUTH-EASTERN UNITED STATES.

**Viereck**, H. L. Maryland Hymenoptera (Aculeata). Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (119-123).

#### gi WESTERN UNITED STATES.

**Ashmead**, W[illiam] H[arris]. [*Bombus titusi* n. sp. from Colorado.] Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (50).

**Brues**, Charles Thomas. Studies of Texan bees. Part I. Austin, Cont. Zool. Lab. Univ. Tex., No. **41**, in Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (79-85, with fig. in text.).

**Cockerell**, T[heodore] D[ru] A[lison]. The bee-genus *Xenoglossa* in California. *l.c.* **13**, 1902, (103).

——— Bees of the genus *Nomada* from California. Philadelphia, Pa., Proc. Acad. Nat. Sci., **55**, 1903, (559-579).

——— Hymenoptera of southern California. Los Angeles, Bull., So. Cal. Acad. Sci., **1**, 1902, (70-71, 137-140).

**Titus**, E. S. G. Three new *Anthidiinae* from Colorado. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (169-171).

**Viereck**, Henry L. Hymenoptera of Beulah, New Mexico. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1902-1903, (43-100).

——— Hymenoptera from southern California and New Mexico, with description of new species. Philadelphia, Pa., Proc. Acad. Nat. Sci., **54**, 1902, (728-743).

**Wheeler**, William Morton. *Erebomyrma*, a new genus of Hypogaecic ants from Texas. Austin, Cont. Zool. Lab. Univ. Tex., No. **45**, in Wood's Holl, Mass., Mar. Biol. Lab. Bull., **4**, 1903, (137-148).

#### h CENTRAL AND SOUTH AMERICA AND WEST INDIES.

**Cameron**, P. On the parasitic Hymenoptera and *Tenthredinidae* collected by Mr. Edward Whymper on the "Great Andes of the Equator." Entomologist, London, **36**, 1903, (95-97, 120-123, 158-161).

——— [Fossoria and *Apilae*]. Descriptions of new species of Hymenoptera taken by Mr. Edward Whymper on the "Higher Andes of the Equator." Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (225-238).

**Ducks**, Adolf. Neue südamerikanische Chrysididen. Zs. Hymenopter., Teschendorf, **3**, 1903, (129-136, 226-232).

**Friese**, H. Neue Arten der Bienen-gattung *Xylocopa* Latr. aus der neotropischen und orientalischen Region. *l.c.* (202-208).

**Friese, H.** Neue *Bombus*-Arten aus der neotropischen Region. *l.c.* (253-255).

**Hamlyn-Harris, R.** The stingless bees of North and South America considered in the light of domestication. *Ent. Rec.*, London, **15**, 1903, (99-100).

**Théring, Rodolphe von.** Contribution à l'étude des Vespides de l'Amérique du Sud. *Paris, Ann. soc. ent.*, **72**, (2<sup>e</sup> semest.), 1903, (144-155).

**Schulz, W. A.** Kritische Bemerkungen zur Hymenopteren-Fauna des nordwestlichen Südamerika. *Berliner ent. Zs.*, **48**, 1903, (253-262).

**Wheeler, W. M.** Fourmis mexicaines. *Bruxelles, Ann. Soc. ent. Belgique*, **45**, 1901, (123-136).

——— *Notices biologiques sur les fourmis mexicaines. l.c.* (199-205).

**ha MEXICO.**

**Melander, Axel Leonard.** Notes on North American *Mutillidae*, with descriptions of new species. Philadelphia, Pa., *Acad. Nat. Sci.*, *Trans. Amer. Ent. Soc.*, **29**, 1903, (291-330, with pl.). Separate. 24 cm.

**hc WEST INDIES.**

**Schulz, W. A.** Materialien zu einer Hymenopterenfauna der westindischen Inseln. München, *Sitzber. Ak. Wiss., math.-phys. Cl.*, **33**, 1903, (451-488, mit Taf.).

**hh BRAZIL.**

**Schrottky, C.** Neue brasilianische Hymenopteren. *Zs. Hymenopter.*, *Teschendorf*, **3**, 1903, (39-45).

**hi ARGENTINA.**

**Hudson, W. H.** The Naturalist in La Plata. [Fourth edition. Letterpress as in previous editions, plates different]. London, 1903, (IX + 394). 8vo.

**Montandon, A. L.** Espèces nouvelles ou peu connues du genre *Belostoma* appartenant aux collections du Musée National Hongrois. Budapest, *Ann. Hist.-Nat. Mus. Nat. Hung.*, **1**, 1903, (358-363).

**i AUSTRALASIA.**

**ic AUSTRALIA.**

**Forel, Auguste.** Fourmis nouvelles d'Australie. *Rev. Suisse Zool.*, Genève, **10**, 1902, (405-548).

**Kieffer, J. J.** Beschreibung einer neuen Australischen *Gasteruption*-Art. *Zs. Hymenopter.*, *Teschendorf*, **3**, 1903, (384).

**if VICTORIA.**

**Barker, E. E.** Bull-ants of Victoria. *Vict. Nat.*, Melbourne, **20**, 1903, (105-111).

**l ATLANTIC.**

**lb AZORES, CANARIES, MADEIRA, CAPE VERDE.**

**Saunders, E.** Hymenoptera *Aculeata* collected by the Rev. A. E. Eaton, M.A., in Madeira and Teneriffe, in the spring of 1902, including some notes on species taken by the late T. Vernon Wollaston and F. A. Bellamy. London, *Trans. Ent. Soc.*, **1903**, (207-218), Supplementary note, *ib.*, (551).

**m INDIAN OCEAN.**

**ma ISLANDS N. OF THE EQUATOR.**

**Forel, Auguste.** Les fourmis des Iles Andamanes et Nicobares. *Rev. Suisse Zool.*, Genève, **11**, 1903, (399-411).

## 4631 TAXONOMY AND SYSTEMATIC.

### GENERAL.

**Signell, G. C.** British oak galls. Falmouth, *Rep. R. Cornwall Poly. Soc.*, **1902**, (72-93).

**Cameron, P.** Descriptions of nineteen new species of *Laridae*, *Odynerus* and *Apidae* from Barrackpore. London, *Trans. Ent. Soc.*, **1903**, (117-132).

——— Hymenoptera (*Ichnumonidae*). Fauna of Maldives and Laccadive Islands, **1**, (51-63).

——— Hymenoptera orientalia, or contributions to the knowledge of the Hymenoptera of the Oriental zoological region. The Hymenoptera of the Khasia hills. Part 2, Section 2. Manchester, *Mem. Lit. Phil. Soc.*, **47**, No. 14, 1903, (1-50).

——— List of N. Zealand Hymenoptera. Wellington, *Trans. N. Zeal. Inst.*, **35**, 1903, (290-299).

**Cockerell, T. D. A.** Hymenoptera of Southern California. Los Angeles, Bull., So. Cal. Acad. Sci., **1**, 1902, (70-71, 137-140).

**Du Buysson, R.** Hyménoptères récoltés au Japon par M. J. Harmand. Bul. Muséum, Paris, **1903**, (125-127).

**Frey-Gessner, E.** Hymenoptera Helvetiae. Schaffhausen, Mitt. Schweiz. Entomol. Ges., **10**, 1903, Beilage (149-180); **11**, 1903, Beilage (181-212).

**Gaulle, J. de.** Un erratum au Catalogus Hymenopterorum de Dalla Torre. Feuille jeunes natural., Paris, (sér. 4), **34**, 1903, (26).

**Kirby, W. F.** Hymenoptera. Ichneumonons, Wasps and Bees. [The number of species of Hymenoptera composing this fauna is considered to be probably very large, though only 44 are known]. Nat. Hist. Sokotra, (235-257, pls. XV, XVI).

**Melander, A. L. and Brues, C. T.** New species of Hymenoptera. Wood's Holl, Mass., Mar. Biol. Bull., **5**, 1903, (1-27, with text fig.).

**Norman, A. M.** Hymenoptera in: Notes on the Natural History of East Finmark. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (167).

**Pic, M.** Notes hyménoptérologiques. Echange, Lyon, **17**, 1902, (38).

— Hyménoptères recueillis en Grèce. *l.c.* (46).

**Rudow.** Verzeichnis der Nester bauenden Hautflügler, Hymenoptera, Europas. Ent. Jahrb., Leipzig, **12**, 1903, (182-209).

**Saunders, E.** Aculeata collected by Colonel Yerbury in Herefordshire, 1902. Ent. Mag., London, **39**, 1903, (112-113).

— Hymenoptera Aculeata in Jersey, June, 1903. *l.c.* (245-248).

— **Morice, F. D. and Morley, C.** Hymenoptera collected by Col. Yerbury in Herefordshire, 1902. *l.c.* (111-114).

**Schletterer, A.** Beitrag zur Hymenopteren-Fauna von Süd-Istrien. Wien, Verh. ZoolBot. Ges., **51**, 1901, (215-220).

**Schulz, W. A.** Kritische Bemerkungen zur Hymenopteren-Fauna des nordwestlichen Südamerika. Berliner ent. Zs., **48**, 1903, (253-262).

**Schulz, W. A.** Materialien zu einer Hymenopterenfauna der westindischen Inseln. München, SitzBer. Ak. Wiss., math.-phys. Cl., **33**, 1903, (451-488, mit Taf.).

**Semenov, A. P.** Analecta hymenopterologica I. . . . Rev. Russ. Ent., Jaroslavl, **3**, 1903, (199).

**Swasey, O. H.** Observations on Hymenopterous parasites of certain *Fulgoridae*. Columbus, Ohio, Univ. Bull., (Ser. 7), No. **23**, 1903, (Cont. Dept. Zool. Ent.). [Reprint from Ohio Nat. Columbus Ohio, **3**, 1903 (444 to 451, with pl.). Separate, 23 cm.

**Viereck, H. L.** Hymenoptera of Beulah, New Mexico. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1902-1903, (43-100).

— Hymenoptera from southern California and New Mexico with descriptions of new species. Philadelphia, Pa., Proc. Acad. Nat. Sci., **54**, 1902, (728-743).

## ACULEATA.

### GENERAL.

**Brues, C. T.** On the sleeping habits of some aculeate Hymenoptera. New York, N.Y., J. Ent. Soc., **11**, 1903, (228-230).

**Viereck, H. L.** The home of some aculeate Hymenoptera in New Jersey with descriptions of two new species of *Plenoculus*. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (72-74).

## ANTHOPHILA.

### GENERAL.

Parasitisme des Triangulins dans les nids de Mellifères. Feuille jeunes natural., Paris, (sér. 4), **33**, 1902, (13-14), d'après Green, Ern. On some parasites of *Xylocopa tenuiscapa*. Ent. Mag., London, **1902**, (232-233). [4619 4631 4819].

**Besler, J. G.** Illustriertes Lehrbuch der Bienenzucht. 3. Aufl. Neu bearb. v. J. Elsässer. Stuttgart, Berlin, Leipzig (W. Kohlhammer), 1903. (VII + 304). 18 cm. 2 M.

**Bouvier.** La vie des abeilles. Bul. Inst. psych. internat., Paris, **2**, 1902, (88-105).

— Quelques observations sur les insectes mellifères et leurs rapports avec les fleurs. Bul. Muséum, Paris, **1903**, (192-196); Naturaliste, Paris, (sér. 2), **25**, 1903, (147-148).

**Brues, C. T.** Studies of Texan bees Part I. Austin, Cont. Zool. Lab. Univ. Tex., No. **41**, in Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (79-85, with fig. in text.).

**Cameron, P.** Descriptions of new species of *Apidae* taken by Mr. Edward Whymper on the "Higher Andes of the Equator." Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (225-238).

**Cockerell, T. D. A.** Notes on some genera of bees. *l.c.* (183-189).

**Doumas.** Observations sur l'apiculture en Algérie. Paris, Bul. soc. nat. acclim., **50**, 1903, (86-90).

**Du Buysson, R.** Nidification de quelques Mégachiles. Paris, Ann. soc. ent., **71**, (2<sup>e</sup> semest.), 1902, [1903], (751-755).

**Ducke, A.** Beitrag zur Synonymie der neotropischen Apiden. Zs. Hymenopter., Teschendorf, **3**, 1903, (176-177).

**Ferton, Ch.** Notes détachées sur l'instinct des hyménoptères mellifères et ravisseurs (2<sup>e</sup> série), avec la description d'une nouvelle espèce. Paris, Ann. soc. ent., **71**, (2<sup>e</sup> semest.), 1903, (499-531, av. 1 pl.).

**Frey-Gessner, E.** Bemerkungen ueber die Imhoff'schen Apiden-Arten in der „Isis“ von Oken 1832 and 1834. Schaffhausen, Mitt. Schweiz. Entomol. Ges., **10**, 1902, (412-418).

— *Anthrena aeneiventris* Mor., *incisa* Evers. *parviceps* Krbh. und *rogenhoferi* Mor., die Männchen. *l.c.* **11**, 1903, (40-45).

**Friese, H.** Neue afrikanische *Megachile*-Arten II. Zs. Hymenopter., Teschendorf, **3**, 1903, (273-290).

**Ljungström, J[ohn] Alb[ert].** Bees in winter-time. (Swedish) Stockholm, 1901, (156, with pl.). 18 cm.

**Noel, P.** Les ennemis des abeilles. Naturaliste, Paris, (sér. 2), **24**, 1902, (70-71, 87, 96-97).

**Pérez, J.** Espèces nouvelles de Mellifères paléarctiques. Bordeaux, Actes soc. linn., (sér. 6), **7**, **57**, 1902, (Proc. verb. XLIII-XLVIII, CLXXIV-CLXXIX).

— Diagnoses d'espèces nouvelles de Mellifères. *l.c.* **58**, 1903, (Proc. verb., LXXVIII-XCIII, CCVIII-CCXXXVI).

**Robertson, C.** Synopsis of *Megachilidae* and *Bombinae*. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (163-178).

— Synopsis of *Sphæcodinae*. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, ([103]-107).

**Rod, E.** Maeterlinck's essay on the life of bees. [Translated by F. C. de Sumichrast]. Int. Mon., Burlington, Vt., **5**, 1902, (431-447).

**Vachal, J.** Hyménoptères rapportés du Japon par M. Harmand. Mellifères (4<sup>e</sup> mémoire). Bul. Muséum, Paris, **1903**, (129-132).

**Willis, J. C. and Burkill, J. H.** Notes on the anthophilous insect fauna of the Clova mountains. Ann. Scot. Nat. Hist., Edinburgh, **1903**, (29-37, 99-102).

#### SPECIAL.

*Agapostemon peruvianus* n. sp. Callao. **Cameron, P.** Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (237).

*Alcidamea utulalis* n. sp. California. **Cockerell, T. D. A.** Los Angeles, Bull., So. Cal. Acad. Sci., **1**, 1902, (70-71, 137-140).

*Ammobates corinatus*, host. **Morice, F. D.** Zs. Hymenopter., Teschendorf, **3**, 1903, (317).

*Andrena*, species. North America. **Bruner, L.** Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (239-258).

— *fulvipennis*, *A. salicis*, notes. **Viereck, H. L.** Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (237-238).

— nn. spp. **Pérez, J.** Bordeaux, Actes soc. linn., (sér. 6), **7**, **57**, 1902, (Proc. verb. LXXVIII-XCII, CLXXIV-CLXXIX, CCVIII-CCXXXVI).

- Andrena* nn. spp. New Mexico. **Viereck**, H. L. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1902-1903, (53-56).
- *placidae* n. sp. **Cockerell**, T. D. A. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (215).
- *mimetica* n. sp. North America. **Cockerell**, T. D. A. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (442-443).
- *patella* n. sp. Kashmir. **Nurse**, C. G. *l.c.* **11**, 1903, (512-543).
- Anthemiois* n. gen., type *Megachile infragilis* Cresson. **Robertson**, C. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (163-178).
- Anthidium conciliatum* n. sp. Kashmir. **Nurse**, C. G. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (517).
- *minutissimum* n. sp. **Bingham**, C. T. Fascic. Malay. Zool., **2**, App., (VI).
- *modestum* n. sp. Transvaal. **Bingham**, C. T. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (59).
- *pondreum* n. sp. Colorado. **Titus**, E. S. G. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (169-171).
- Anthophora* nn. spp. North America. **Cockerell**, T. D. A. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (451-452, 454-455).
- nn. spp. **Pérez J.** Bordeaux, Actes soc. linn., (Sér. 6), **7**, **57**, 1902, (Proc. verb. XLIII-XLV).
- *guachalae* n. sp. **Cameron**, P. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (233).
- *nubiterrae* n. sp. New Mexico. **Viereck**, H. L. *l.c.* 1902-1903, (16).
- Apis*, notes. **Cockerell**, T. D. A. Entomologist, London, **36**, 1903, (177-178).
- *mellifica*. Les petites abeilles noires. Rev. Intern. Apicult., Nyon, **25**, 1903, (178-179).
- Die Faulbrut. Schweiz. Landw. Centralbl., Frauenfeld, **21**, 1902, (343-347).
- (s 2-9053)
- Apis mellifica*. Histologie des Ernährungs-Systems. **Abonyi**, S. Állatt. Közlem., Budapest, **2**, 1903, (137-163, mit Taf. XI-XIV).
- Parthenogenese der Drogen. **Bachmetjew**, P. Allg. Zs. Ent., Neudamm, **8**, 1903, (37-44).
- Une reine qui change de domicile. **Barthélemy**, U. Rev. Internat. Apicult., Nyon, **24**, 1902, (197-198).
- moyen d'expulser les larves de mâles des rayons. **Barthélemy**, N. *l.c.* **25**, 1903, (207-208).
- Magen. **Brünnich**, Schweiz. Bienenztg., Aarau, **25**, 1902, (203-217, mit 1 fig.).
- Eierstock der Königin. **Brünnich**. *l.c.* (417-420).
- **Bulman**, G. W. Zoologist, London, (Ser. 4), **6**, 1902, (220-222).
- Eiablage d. Königin. **Burfeind**, H. Aus d. Heimat, Bremerhaven, **1901-02**, 1903, (38).
- Lebensweise. **Büttel-Reepen**, von. Allg. Zs. Ent., Neudamm, **8**, 1903, (453-457).
- Bedeutung der Stirn- und der Seitenaugen. **Büttel-Reepen**, von. Bienenwirtsch. Centralbl., Hannover, **39**, 1903, (322-325).
- Parthenogenese. **Büttel-Reepen**, H. von. Natur u. Schule, Leipzig, **1**, 1902, (230-339).
- **Casteel**, D. B. and **Phillips**, E. F. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **6**, 1903, (18-37, with text-fig.).
- Les essains naturels. **Crépieux - Jamin**, J. Rev. Internat. Apicult., Nyon, **29**, 1903, (129-131).
- La fécondité des faux bourdons. **Dadant**, C. P. *l.c.* (61-64).
- Eigenwärme. **Dickel**, F. D. ill. Bienenztg., Leipzig, **19**, 1902, (50-52).
- Wachsdrüsen. **Dreyling**, L. Zool. Anz., Leipzig, **26**, 1903, (710-715).



*Apis mellifica*, sociale Beziehungen.  
**Gerstung**, F. Glauben u. Wissen,  
Stuttgart, 1, 1903, (183-190, 221-228).

\_\_\_\_\_ eigentümliche  
Schwarmanlegestellen. **Goeken**, F.  
Bienenwirtsch. Centralbl., Hannover, 38,  
1902, (357-358).

\_\_\_\_\_ warum werden  
die Königinnen senkrecht angelegt?  
**Goeken**, F. l.c. 39, 1903, (52).

\_\_\_\_\_ Befruchtung  
der Königinnen. **Goeken**, F. l.c. (310).

\_\_\_\_\_ **Gravenhorst**,  
C. J. H. Der praktische Imker. Lehr-  
buch der rationellen Bienenzucht auf  
beweglichen und unbeweglichen Waben.  
5. verm. u. verb. Aufl., neue Ausg.  
Leipzig (R. C. Schmidt u. Co.), 1903,  
(XVIII + 275). 23 cm. Geb. 5 M.

\_\_\_\_\_ Une reine qui  
ne pond que des œufs stériles. **Gublar**,  
U. Rev. Internat. Apicult., Nyon, 24,  
1902, (149).

\_\_\_\_\_ sexuelle Bezie-  
hungen. **Kaempfer**, R. Bienenwirtsch.  
Centralbl., Hannover, 38, 1902, (358-  
360).

\_\_\_\_\_ Leben im Win-  
ter. **Kaempfer**, R. D. ill. Bienenztg,  
Leipzig, 19, 1902, (3-5).

\_\_\_\_\_ Kalender für  
deutsche Bienenfreunde auf das Jahr  
1903. Jg 10, hrsg. . . . v. Oskar  
Krancher. Leipzig (R. C. Schmidt &  
Co.), 1903, (VIII + 184).

\_\_\_\_\_ Hervorbringung  
des Geschlechtes. **Kipping**, [S. J.].  
Natw. Wochenschr., Jena, 18, 1903,  
(313-315).

\_\_\_\_\_ **Krancher**, O.  
und **Krancher**, L. Kleines Lexikon der  
Bienenzucht und Bienenkunde, unter  
teilweiser Berücksichtigung von Ge-  
schichte und Pflanzenkunde der Bienen-  
züchter. Lfg 1-13. Leipzig (R. C.  
Schmidt & Co.), 1902, (III + 507).  
19 cm. Die Lfg 0,40 M. Complet geb.  
6 M.

\_\_\_\_\_ Lebensweise.  
**Kulagin**, N. Allg. Zs. Ent., Neudamm,  
8, 1903, (395-397).

\_\_\_\_\_ **Lotter**, J. W.  
Katechismus der Bienenzucht. 6. Aufl.  
Nürnberg (F. Korn), 1903, (IV + 234).

*Apis mellifica*. **Masterlinck**, M. Das  
Leben der Bienen. Autorisierte Ausg.  
in das Deutsche übertragen von Friedrich  
v. Oppeln-Bronikowski. 2. erweit. Aufl.  
Leipzig, 1903, (264).

\_\_\_\_\_ **Masterlinck**,  
M. The wrath of the bee. Harper's  
Monthly Magazine, New York and  
London, 105, 1902 ([467]-469).

\_\_\_\_\_ la charge.  
**Maupy**, L. Rev. Internat. Apicult.,  
Nyon, 24, 1902, (32-33).

\_\_\_\_\_ ein Bienen-  
schwarm im Platzregen. **Metze**, O.  
Ans d. Heimat, Stuttgart, 16, 1903, (69).

\_\_\_\_\_ **Patmer**, C. G. E.  
Schlesiens Bienenzucht. [In: Bunte  
Bilder aus dem Schlesierlande, Bd 2.]  
Breslau, 1903, (127-133).

\_\_\_\_\_ Uebertragung  
von Eiern aus bestifteten Zellen in leere  
Zellen durch die Arbeitsbienen. **Reber**,  
D. Schweiz. Bienenztg, Aarau, 25,  
1902, (273-276).

\_\_\_\_\_ Wirkungen  
von Stichen. **Rohrbacher**, A. D. ill.  
Bienenztg, Leipzig, 20, 1903, (56-57).

\_\_\_\_\_ Les abeilles  
pourraient-elles transformer des larves  
d'ouvrières en mâles? **Taillandier**.  
Rev. Internat. Apicult., Lyon, 24, 1902,  
(155-156).

\_\_\_\_\_ eine merkwür-  
dige Eigenschaft des Bienenstachels.  
**Wender**, A. Aus d. Heimat, Stuttgart,  
16, 1903, (106).

*Bombias* n. gen., type *B. auricomus*  
nom. nov. **Robertson**, C. Philadelphia,  
Pa., Acad. Nat. Sci., Trans. Amer. Ent.  
Soc., 29, 1903, (176).

*Bombomelecta*, classification and nn.  
spp. **Viereck**, H. L. l.c. (179-182).

*Bombus*, ricerche biologiche. **Benetti**,  
V. Mon. zool. ital., Firenze, 13, 1902,  
(Supplemento), (38-40).

\_\_\_\_\_ biologische Beobachtungen  
an brasilianischen Nestern. **Ihering**,  
R. von. Allg. Zs. Ent., Neudamm, 8,  
1903, (447-453).

\_\_\_\_\_ Lebensweise. **Rothe**, H.  
H. Natw. Wochenschr., Jena, 18, 1903,  
(457-462).

\_\_\_\_\_ nn. spp. **Friese**, H. Zs.  
Hymenopter., Teschendorf, 3, 1903,  
(253-255).

*Bombus grandaerius* Heer. **Frey-Gessner**, E. Schaffhausen, Mitt. Schweiz. Entomol. Ges., **10**, 1902, (419).

——— *gelidus* Cress., *Bombus kincaidii* Ckll. **Viereck**, H. L. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (54).

——— *titusi* n. sp. Colorado. **Ashmead**, W. H. *l.c.* **13**, 1902, (50).

*Caenohalicetus* n. gen., *C. trichiothalamus* n. sp. **Cameron**, P. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (231).

*Centris*. **Alfken**, J. D. Zs. Hymenopter., Teschendorf, **3**, 1903, (211-213).

*Centrosmia* n. gen., type *Osmia bucephala* Cresson. **Robertson**, C. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (170).

*Ceratias* n. gen., type *Megachile pugnutus* Say. **Robertson**, C. *l.c.* (168-172).

*Ceratina* nn. spp. British Guiana. **Cockerell**, T. D. A. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (201-202).

——— *submaritima*: *ekrhorni* n. subsp. California. **Cockerell**, T. D. A. *l.c.* (453).

——— *townsendi* n. sp. Mexico. **Cockerell**, T. D. A. *l.c.* (453).

*Chalicodoma muraria*, Koloniebildung. **Friese**, H. Allg. Zs. Ent., Nendamm, **8**, 1903, (313-315).

*Chelostoma australis* n. sp. California. **Cockerell**, T. D. A. Los Angeles, Bull., So. Cal. Acad. Sci., **1**, 1902, (70-71, 137-140).

*Coelioxys curciapina* n. sp. Borneo. **Cameron**, P. Entomologist, London, **36**, 1903, (9).

——— *rufitarsus*: *rho's* n. subsp. North America. **Cockerell**, T. D. A. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (452).

——— *stolidus* n. sp. India. **Nurse**, C. G. *l.c.* **11**, 1903, (548).

*Colletes* nn. spp. **Pérez**, J. Proc. verb. Soc., Bordeaux, **58**, 1903, (CCXXIII-CCXXX).

——— nn. spp. New Mexico. **Viereck**, H. L. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1902-1903, (58-62).

(x 2-9053)

*Colletes cruc's* n. sp. **Cockerell**, T. D. A. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (304).

——— *daviesana*, Parasitismus von *Bombylius pumilus* bei. **Nilsen**, J. C. Zool. Jahrb. Jena, Abt. f. Syst., **18**, 1905, (647-658, mit 1 Taf.).

*Coptorthosoma*, Symbiose mit *Greenia*. **Oudemans**, A. C. Zool. Anz., Leipzig, **27**, 1903, (137-139).

*Crocisa jägerskiöldi* n. sp. Khartum. **Morice**, F. D. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (611-612).

——— *kashmirensis* n. sp. Kashmir. **Nurse**, C. G. *l.c.* **11**, 1903, (548-549).

*Cyphopyja* n. gen., type *Megachile montivaga* Cresson. **Robertson**, C. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (169, 172).

*Dasiapis* n. gen., *D. ochracea* n. sp. North America. **Cockerell**, T. D. A. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (450-451).

*Dasygoda minor* n. sp. **Pérez**, J. Proc. verb. Soc., Bordeaux, **58**, 1903, (CCXXII).

*Diagonozus* n. gen., *D. bicometes* n. sp. Kamerun. **Enderlein**, G. Berliner ent. Zs., **48**, 1903, (35-37).

*Dialonia* n. gen., type *Sphecodes antennariae*. **Robertson**, C. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (104).

*Dianthidium balli* n. sp. Colorado. **Titus**, E. S. G. *l.c.* **13**, 1902, (169-171).

*Diceratomia* n. gen., type *Osmia quadridentata* Cresson. **Robertson**, C. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (166, 171).

*Drepanium* n. gen., type *Sphecodes falcifer* Pittn. **Robertson**, C. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (103).

*Epeolus autumnalis* n. sp. **Robertson**, C. *l.c.* **13**, 1902, (79-81).

——— *militaris* Gerst. und *Epeolus friesei* n. sp. **Brauns**, H. Zs. Hymenopter., Teschendorf, **3**, 1903, (362-364).

——— *penicilliferus* n. sp., *E. scelestus* var. *tubercularis* n. var.

- Brues**, C. T. Austin, Cont. Zool. Lab. Univ. Tex., No. 41 in: Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (81-82).
- Eucera* nn. spp. **Pérez**, J. Bordeaux, Actes soc. linn., (sér. 6), **7**, 57, 1902, (Proc. verb. XLVI-XLVIII).
- *andicola* n. sp. **Cameron**, P. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (234).
- Euglossa leucopyga* Fries & *E. ornata* Moes. ♀ Beschreibung, nn. spp. et nn. varr. **Friese**, H. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., **1**, 1903, (574-575).
- Gnathodon* n. gen., type *Megachile georgica* Cresson. **Robertson**, C. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (168, 172).
- Gnathosmia* n. gen., type *Osmia georgica* Cresson. **Robertson**, C. l.c. (165, 171).
- Habropoda*? *carinifrons* n. sp. Ecuador. **Cameron**, P. l.c. (235).
- Haliotoides davidsoni* n. sp. California. **Cockerell**, T. D. A. Los Angeles, Bull., So. Cal. Acad. Sci., **1**, 1902, (70-71, 137-140).
- (*Parahaliotoides*) *oryz* n. sp. New Mexico. **Viereck**, H. L. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1902-1903, (49).
- Halictus*, notes on the genus. **Cockerell**, T. D. A. Entomologist, London, **36**, 1903, (206-208).
- visitant les fleurs de *Nymphaea alba*. (Hollandais) **Thijssse**, J. P. De Levende Natuur, Amsterdam, **7**, 1903, (120-121, av. fig.).
- nn. spp. Bengal. **Cameron**, P. London, Trans. Ent. Soc., **1903**, (130-132).
- nn. spp. Assam. **Cameron**, P. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (330-331).
- nn. spp. **Enderlein**, G. Berliner ent. Zs., **48**, 1903, (38, 40).
- nn. spp. Kashmir. **Nurse**, C. G. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (541-542).
- nn. spp. **Pérez**, Bordeaux, Actes soc. linn., **58**, 1903, (Proc. verb., I-XXVIII-XCIII, CCVIII-CCXVI).
- Halictus* nn. spp. Japan. **Vachal**, J. Bul. Muséum, Paris, **1903**, (129-132).
- *artifrons* n. sp. Tenerife. **Saunders**, E. London, Trans. Ent. Soc., **1903**, (215).
- *ecuadorensis* n. sp. Quito. **Cameron**, P. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (231).
- *niger* n. sp. New Mexico. **Viereck**, H. L. l.c. 1902-1903, (58).
- *validus* n. sp. **Bingham**, C. T. Fascic. Malay. Zool., **2**, App., (V).
- Heriades odontura* n. sp. California. **Cockerell**, T. D. A. Los Angeles, Bull., So. Cal. Acad. Sci., **1**, 1902, (70-71, 137-140).
- Leucosmia* n. gen., type *Osmia albi-ventris* Cresson. **Robertson**, C. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (166, 171).
- Lithurgopsis* n. gen., type *Lithurgus apicalis* Cresson. **Fox**, W. J. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (137-140).
- note. **Fox**, W. J. l.c. (182).
- notes on the genus; *L. gibbosus* var. *opuntiae* n. var. **Cockerell**, T. D. A. l.c. (182).
- Machacris* n. gen., type *Sphecodes stygius*, *M. illinoensis* n. sp. **Robertson**, C. l.c. **14**, 1903, (104, 107).
- Macrocera* nn. spp. **Pérez**, J. Bordeaux, Actes soc. linn., (sér. 6), **7**, 57, 1902, (Proc. verb. XLV-XLVI).
- Megachile* and flowers. **McLachlan**, Ent. Mag., London, **39**, 1903, (255).
- nn. spp. **Cameron**, P. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (232-233).
- nn. spp. California. **Cockerell**, T. D. A. Los Angeles, Bull., So. Cal. Acad. Sci., **1**, 1902, (70-71, 137-140).
- nn. spp. Sunda-Archipel. **Friese**, H. Zs. Hymenopter., Teschen-dorf, **3**, 1903, (241-245, 349-350).
- nn. spp. Amerika. **Friese**, H. l.c. **3**, 1903, (246-248, 273-290).

*Megachile* nn. spp. Kashmir. **Nurse**, C. G. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (546-547).

— *japonica* n. sp. Japan. **Alfken**, J. D. Zs. Hymenopter., Teschendorf, **3**, 1903, (209-211).

— *longula* n. nom. = *Megachile* (= *Lithurgus*) *oblonga* Fox. **Fox**, W. J. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (137-140).

— *scindularia* n. sp. Congo. **Du Buysson**, R. Bul. Muséum, Paris, **1902**, (599-601).

— *tricarinata* n. sp. Transvaal. **Bingham**, C. T. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (58-59).

*Megacillisa* nn. spp. **Cameron**, P. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (232, 237).

*Melanomada* n. subgen. (*Nomada*). **Cockerell**, T. D. A. Philadelphia, Pa., Proc. Acad. Nat. Sci., **55**, 1903, (587).

*Melanostelis nyssonoides* n. sp. **Brues**, C. T. Austin, Cont. Zool. Lab. Univ. Tex., No. **41** in: Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (84).

*Melipona*, Brazilien, Biologie. **Ihering**, H. von. Zool. Jahrb., Jena, Abt. f. Syst., **19**, 1903, (172-287, mit 13 Taf.).

— nn. spp. **Bingham**, C. T. Fascic. Malay. Zool., **2**, App. (VI).

— *seminigra* n. sp. **Friese**, H. Zs. Hymenopter., Teschendorf, **3**, 1903, (359-361).

*Melissodes humilior* n. sp. New Mexico. **Cockerell**, T. D. A. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (447-448).

*Meliturcula* n. gen., *M. braunsi* n. sp. Süd-Afrika. **Friese**, H. Zs. Hymenopter., Teschendorf, **3**, 1903, (33-34).

*Microstelis* n. gen., type *Stelio lateralis* Cresson. **Robertson**, C. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (170-171).

*Monilosmia* n. gen., type *Osmia canadensis* Cresson. **Robertson**, C. l.c. (166, 171).

*Nomada*, North American spp. **Cockerell**, T. D. A. Philadelphia, Pa., Proc. Acad. Nat. Sci., **55**, 1903, (580-614).

*Nomada* nn. spp. California. **Cockerell**, T. D. A. l.c. (559-579).

— nn. spp. North America. **Cockerell**, T. D. A. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (444-447).

— nn. spp. *N. astori* var. ? *ultima* n. var. America. **Cockerell**, T. D. A. l.c. (203-214).

— *deccrata* (Smith), description and 3 nn. spp. Kashmir. **Nurse**, C. G. l.c. **11**, 1903, (543-545).

— *formula* n. sp. California. **Viereck**, H. L. Philadelphia, Pa., Proc. Acad. Nat. Sci., **54**, 1902, (728-743).

— *simplex* n. sp. **Robertson**, C. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (79-81).

*Nomadula* n. subg. (*Nomada*). **Cockerell**, T. D. A. Philadelphia, Pa., Proc. Acad. Nat. Sci., **55**, 1903, (580-614).

*Nomia* nn. spp. Transvaal. **Bingham**, C. T. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (51-53).

— *tegulata* Smith ♂ from Egypt, description. **Morice**, F. D. l.c. (610-611).

*Oligotropus* n. gen., *O. campanulae* n. sp. **Robertson**, C. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (168, 171).

*Osmia*, gynandrous. **Morice**, London, Proc. Ent. Soc., **1903**, (6).

— nn. spp. Kashmir. **Nurse**, C. G. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (545-546).

— nn. spp. **Robertson**, C. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (79-81).

— *excarata* n. sp. Japan. **Alfken**, J. D. Zs. Hymenopter., Teschendorf, **3**, 1903, (209-211).

— *ochraceicornis* n. sp. **Ferton**, C. Paris, Ann. Soc. ent., **71**, (2<sup>e</sup> semest.), 1902, (493-531, av. 1 pl.).

*Oxaea versicolor* n. sp. Brazil. **Schrottky**, C. Zs. Hym. n. pter., Teschendorf, **3**, 1903, (39-45).

*Panurginus* nn. spp. New Mexico. **Viereck**, H. L. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1902-1903, (51-52).

- Panurgus rufiventris* n. sp. Pérez, J. Proc.-verb. Soc., Bordeaux, 58, 1903, (CCXXII).
- Paracentris* n. gen., *P. fulvorhirta* n. sp. Cameron, P. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., 29, 1903, (235-236).
- Phiarus melectoides*, host. Morice, F. D. Zs. Hymenopter., Teschendorf, 3, 1903, (317).
- Podalirius canariensis* n. sp. Tenerife. Saunders, E. London, Trans. Ent. Soc., 1903, (216-217).
- Prochelostoma* n. gen., type *Periades philadelphii* Rob. Robertson, C. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., 29, 1903, (167-171).
- Prosopis* nn. spp. Transvaal. Bingham, C. T. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (49-50).
- nn. spp. India. Nurse, C. G. l.c. 11, 1903, (534-538).
- nn. spp. Pérez, J. Proc.-verb. Soc., Bordeaux, 58, 1903, (CCXXX-CCXXXVI).
- nn. spp. New Mexico. Viereck, H. L. l.c. 1902-1903, (43-100).
- *atra* n. sp. Tenerife. Saunders, E. London, Trans. Ent. Soc., 1903, (212-213).
- *globula* n. sp. Japan. Vachal, J. Bul. Muséum, Paris, 1903, (129-132).
- Protanhydium cockerelli* n. sp. Colorado. Titus, E. S. G. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (169-171).
- Proteraner* n. gen., type *Sphecodes ranunculi*. Robertson, C. l.c. 14, 1903, (103).
- Rhophites trispinosus* nn. sp. Pérez, J. Bordeaux, Actes Soc. linn., 58, 1903, (Proc. verb. CCXXI).
- Solenopalpa fertoni* n. sp. Pérez, J. l.c. (XCIII).
- Sphecodes* nn. spp. India. Nurse, C. G. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (538-541).
- nn. spp. Pérez, J. Bordeaux, Actes soc. linn., 58, 1903, (CCXVIII-CCXXI).
- Sphecodes fragaria* n. sp. New Mexico. Cockerell in Viereck, H. L. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., 29, 1902-1903, (43-100).
- *oriundus* n. sp. Japon. Vachal, J. Bul. Muséum, Paris, 1903, (131).
- Sphecodium* n. gen., *S. cressonii* n. sp. Robertson, C. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, ([103]-107).
- Stelidium* = *Sphecodium*. Robertson, C. l.c. ([103]-107).
- Tetralonia brevipennis* (Cam.), description of species. India. Nurse, C. G. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (549).
- Triepeolus minimus* n. sp. Robertson, C. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (79-81).
- Trigona* Brazil, biologie. Tharing, H. von. Zool. Jahrb., Jena, Abt. f. Syst., 19, 1903, (179-287, mit 13 Taf.).
- notes on nests. Waterhouse, C. O. London, Trans. Ent. Soc., 1903, (133-146, pls. VI.).
- nn. spp. Friese, H. Zs. Hymenopter., Teschendorf, 3, 1903, (359-361).
- Trypetes barbatus* n. sp. Robertson, C. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., 29, 1903, (171).
- Xanthosarus* n. gen., type *Megachile latimanus* Say. Robertson, C. l.c. (168, 172).
- Xanthosmia* n. gen., type *Osmia cordata* Rob. Robertson, C. l.c. (166, 171).
- Xenoglossa angelica* n. sp. California. Cockerell, T. D. A. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (103).
- Xenoglossodes excurrans* n. sp. North America. Cockerell, T. D. A. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (448-449).
- Xylocopa*, tube digestif. Bugrion, E. Arch. Sci. Phys., Genève, (Ser. 4), 15, 1903, (92-93).
- nn. spp. aus der neotropischen und orientalischen Region. Friese, H. Zs. Hymenopter., Teschendorf, 3, 1903, (202-208).

*Xylocopa* nn. spp. Galla und Somali. **Enderlein**, G. Berliner ent. Zs., **48**, 1903, (45-64).

—— *varipuncta*, geographical distribution. **Cockerell**, T. D. A. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (318). Correction. *Id.*, **14**, 1903, (29).

—— *violacea*, recherches histologiques sur le tube digestif. **Bugnion**, E. Aarau, Verh. Schweiz. Natf. Ges., **85**, 1902 (76); Arch. Sci. Phys., Genève, (Ser. 4), **14**, 1902, (531-534).

—— Verbreitungsgebiet in Deutschland. **Schuster**, L. Zool. Garten, Frankfurt a. M., **44**, 1903, (28-29).

## VESPIDAE

## GENERAL.

**Brauns**, H. Beiträge zur Kenntnis süd-afrikanischer Masariden. Zs. Hymenopter., Teschen-**dorf**, **2**, 1902, (181-185, 275-282, 373-374); **3**, 1903, (65-73).

**Ihering**, R. von. Contribution à l'étude des Vespides de l'Amérique du Sud. Paris, Ann. soc. ent., **72**, (2<sup>e</sup> semest.), 1903, (144-155).

**Pack-Beresford**, D. R. Notes on wasps. Irish Nat., Dublin, **12**, 1903, (15-17).

## SPECIAL.

*Alastor chrysocephalus* n. sp. Brazil. **Schrottiky**, C. Zs. Hymenopter., Teschen-**dorf**, **3**, 1903, (39-45).

*Ancistrocerus halophila* n. sp. California. **Viereck**, H. L. Philadelphia, Pa., Proc. Acad. Nat. Sci., **54**, 1902, (728-743).

*Ceramius* nn. spp. Südamerika. **Brauns**, H. Zs. Hymenopter., Teschen-**dorf**, **2**, 1902; **3**, 1903, (65-68).

*Eumenes* nn. spp. Kashmir. **Nurse**, C. G. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (530-532).

*Nectarinia baecalaurea* n. sp., *N. augusti* var. *quinta* n. var. Amérique du Sud. **Ihering**, R. von. Paris, Ann. soc. ent., **72**, (2<sup>e</sup> semest.), 1903, (153-154).

*Odynerus* nn. spp. India. **Nurse**, C. G. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (532-534).

—— (*Ancistrocerus?*) *aberraticus* n. sp. ♂. **Morice**, F. D. *l.c.* **12**, 1903, (613-614).

—— *sibilans* n. sp. Bengal. **Cameron**, P. London, Trans. Ent. Soc., **1903**, (129).

—— (*Hoplopus*) *simillimus* Mor., new to the British list. **Saunders**, E. Ent. Mag., London, **39**, 1903, (6-7).

*Polistes* spp. S. America. **Ihering**, R. von. Paris, Ann. soc. ent., **72**, (2<sup>e</sup> semest.), 1903, (144-145).

—— *hertwigi* n. sp. **Schulz**, W. A. Muncih, SitzBer. Ak. Wiss., math-phys. Cl., **33**, 1903, (486).

*Polybia* nn. spp. Amérique du Sud. **Ihering**, R. von. *l.c.* (144-145).

—— *bucula* n. sp. Afrique. **Du Buysson**, R. Paris, Bul. soc. ent., **1902**, (253-254).

—— *theresiana* n. sp. Nord-west. Südamerika. **Schulz**, W. A. Berliner ent. Zs., **48**, 1903, (257).

*Provespa* n. gen., type *Vespa dorylloides* Saussure. **Ashmead**, W. H. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (182).

*Rhynchium* nn. spp. Assam. **Cameron**, P. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (328-330).

—— *sirdari* n. sp. Khartum. **Morice**, F. D. *l.c.* **12**, 1903, (612-613).

*Symmorphus meridionalis* n. sp. New Mexico. **Viereck**, H. L. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1902-1903, (69).

*Synagris amplissima* Kohl., *S. nyassas* Stad., *S. stuhlmanni* Stad., Beschreibung und 5 nn. spp. **Mocsary**, A. Budapest, Ann. Hist. Nat. Mus. Nat. Hung., **1**, 1903, (503-508).

*Vespa*, Entwicklung der Stemmata. **Zavřel**, Jan. Prag, SitzBer. Böhm. Ges. Wiss., **1902**, No. XIII, 1903, (36, mit 3 Taf.).

—— monographie. **Du Buysson**, R. Paris, Ann. soc. ent., **72**, (2<sup>e</sup> semest.), 1903, (260-288, av. pl.).

—— attitude of hibernating. **Frohawke**, F. W. Entomologist, London, **36**, 1903, (33-34).

*Vespa* nn. spp. Japan. **Cameron**, P. *l.c.* (278-281).

———— *austriaca*, relationship to *V. rufa*. **Carpenter**, G. H. and **Pack-Beresford**, D. R. Ent. Mag., London, **39**, 1903, (230-242, pl. IV); Irish Nat., Dublin, **12**, 1903, (221-235, pl. II).

———— *germanica* F. in India. **Cameron**, P. Zs. Hymenopter., Teschen-dorf, **3**, 1903, (317).

———— *media* D. G., Nestbau. **Kopp**, C. Aus d. Heimat, Stuttgart, **16**, 1903, (26-27).

———— *rufa* + *austriaca*. **Saunders**, E. Ent. Mag., London, **39**, 1903, (272-274).

———— *Sharp*, D. *l.c.* (297-299).

### SPHEGIDAE.

#### GENERAL.

**André**, E. Fasc.- 11 - Hymenoptera fam. Mutillidae. In: Wytsman, P. Genera Insectorum. Bruxelles, 1902, (77, av. 3 pls. hors texte). 20 fr.

———— Mutillides d'Afrique nouveaux ou imparfaitement connus. Zs. Hymenopter., Teschen-dorf, **3**, 1903, (81-88, 137-144, 232-239).

**Cameron**, P. Descriptions of new species of Fossoria taken by Mr. Edward Whymer on the Higher Andes of the Equator. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (225-238).

**Coupin**, H. Les *Bembex*. Nature, Paris, (1<sup>er</sup> sem.), **31**, 1903, (65-67, av. fig.).

**Nielsen**, J. C. Observations on the life-history of some Danish fossorial wasps. (Danish) Kjöbenhavn, Ent. Med., (Ser. 2), **2**, 1903, (110-114).

#### SPECIAL.

*Agencia architecta* Say. **Johnson**, S. A. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (290).

———— *euphorbiae* n. sp. California. **Viereck**, H. L. Philadelphia, Pa., Proc. Acad. Nat. Sci., **54**, 1902, (728-743).

*Ageniozenus* not synonymous with *Ceropala*. **Ashmead**, W. H. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (318).

*Ammophila* nn. spp. India. **Nurse**, C. G. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (518-520).

———— nn. spp., Quetta, Deesa. **Nurse**, C. G. Bombay, J. Nat. Hist. Soc., **15**, 1903, (8-9).

———— nn. spp. **Kohl**, F. F. Wien. Ann. Nat. Hist. Hofmus., **16**, 1901, (142-164, 2 Taf.).

———— *luffi* n. sp. Jersey. **Saunders**, E. Ent. Mag., London, **39**, 1903, (245-248).

———— *tydei*, mœurs. **Picard**, F. Feuille jeunes natural., Paris, (sér. 4), **34**, 1903, (15-17).

*Ammoplanus mandibularis* n. sp. South Africa. **Cameron**, P. Entomologist, London, **36**, 1903, (178).

*Ampulex* nn. spp. Khasia Hills. **Cameron**, P. London, Trans. Ent. Soc., **1903**, (234-238).

———— nn. spp., *A. pilosa* Cam. Assam. **Cameron**, P. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (319-323).

*Anoplius* nn. spp. Assam. **Cameron**, P. *l.c.* (325-328).

———— (*Pompilius*) *padrinus* n. sp. California. **Viereck**, H. L. Philadelphia, Pa., Proc. Acad. Nat. Sci., **54**, 1902, (728-743).

*Astata lubricata* n. sp. India. **Nurse**, C. G. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903.

———— *quettae* n. sp. Quetta. **Nurse**, C. G. Bombay, J. Nat. Hist. Soc., **15**, 1903, (1).

*Atillum* n. gen. **André**, E. in Wytsman, P. Genera Insectorum. Bruxelles, 1902, (16, 19, 47).

*Bembex*. **Coupin**, H. Nature, Paris, **31**, (1<sup>er</sup> semest.), 1903, (65-67, av. 2 figs.).

———— *irritata* n. sp. India. **Nurse**, C. G. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (523-524).

*Bothynostethus* nn. spp. **Ducke**, A. Wien, Verh. Zool. Bot. Ges., **52**, 1902, (575-580).

*Brachycistis cremastogaster* n. sp. N. America. **Melander**, A. L. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (329).

*Campsomeris (Dielis) argenteopilosa* n. sp. **Cameron**, P. l.c. (225).

*Cerceris* nn. spp. India. **Nurse**, C. G. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (513, 524-526).

———— *annandali* n. sp. **Bingham**, C. T. Fascic. Malay. Zool., **2**, App., (V).

———— *cockerelli* n. sp. California. **Viereck**, H. L. Philadelphia, Pa., Proc. Acad. Nat. Sci., **54**, 1902, (728-743).

*Ceropaltes* not synonymous with *Ageniozenus*. **Ashmead**, W. H. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (318).

———— *ligea* n. sp. **Bingham**, C. T. Fascic. Malay. Zool., **2**, App., (V).

———— *marcia* n. sp. Kashmir. **Nurse**, C. G. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (513-514).

*Chyphotes heathii* n. sp. N. America. **Melander**, A. L. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (326).

*Crabro* nn. spp. Quetta, Peshin and Kangra Valley. **Nurse**, C. G. Bombay, J. Nat. Hist. Soc., **15**, 1903, (16-18).

———— *gulmargensis* n. sp. Kashmir. **Nurse**, C. G. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (528-530).

*Dasylabris hurei* n. sp. l'Afrique. **André**, E. Zs. Hymenopter., Tschendorf, **3**, 1903, (230).

*Dasylabroides willowmorensis* n. sp. l'Afrique. **André**, E. l.c. (85).

*Diodontus* nn. spp. Quetta and Peshin. **Nurse**, C. G. Bombay, J. Nat. Hist. Soc., **15**, 1903, (13-14).

———— nn. spp. **Kohl**, F. F. Wien, Verh. ZoolBot. Ges., **51**, 1901, (120-134, mit 1 Tat.).

*Discolia erythropoda* n. sp. Assam. **Cameron**, P. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (323-324).

*Elis (Dielis) pygmaea* n. sp. Brazil. **Schrottky**, C. Zs. Hymenopter., Tschendorf, **3**, 1903, (39).

———— *rubricata* n. sp. India. **Nurse**, C. G. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (402-403).

*Gastrosericus electus* n. sp. Deesa. **Nurse**, C. G. Bombay, J. Nat. Hist. Soc., **15**, 1903, (7).

*Gorytes* nn. spp. **Handlirsch**, A. Wien, Verh. ZoolBot. Ges., **51**, 1901, (351-356).

———— nn. spp. Mt. Abu. **Nurse**, C. G. Bombay, J. Nat. Hist. Soc., **15**, 1903, (14-15).

———— *lenis* n. sp. India. **Nurse**, C. G. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (521).

*Homogambrus* nn. spp. Deesa and Quetta. Baluchistan. **Nurse**, C. G. Bombay, J. Nat. Hist. Soc., **15**, 1903, (2).

*Hypoferreola* nn. spp. **Cameron**, P. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (129).

*Labidomilla* n. gen. for *M. d-formis* Smith. **André**, E. in Wytzman, P. Genera Insectorum. Bruxelles, 1902, (14, 18, 16).

*Larra neaera* n. sp. Quetta. **Nurse**, C. G. Bombay, J. Nat. Hist. Soc., **15**, 1903, (4).

———— *paroula* n. sp. Brazil. **Schrottky**, C. Zs. Hymenopter., Tschendorf, **3**, 1903, (39-45).

*Methoca incerta* n. sp. l'Afrique. **André**, E. l.c. (81).

*Mimesa alticola* n. sp. New Mexico. **Viereck**, H. L. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1902-1903, (66).

*Miscophus* nn. spp. Quetta, Baluchistan. **Nurse**, C. G. Bombay, J. Nat. Hist. Soc., **15**, 1903, (7).

———— *eatonii* n. sp. Teneriffe. **Saunders**, E. London, Trans. Ent. Soc., **1903**, (209-210).

*Mutilla* nn. spp. l'Afrique. **André**, E. Zs. Hymenopter., Tschendorf, **3**, 1903, (139-143, 233-234).

———— nn. spp. North America. **Melander**, A. L. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (290-325).

———— descriptions of species and 8 nn. spp. India. **Nurse**, C. G. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (394-400).

———— *acidalia*, note. Assam. **Cameron**, P. l.c. (331).



*Mutilla infensa* n. sp. **Melander**, A. L. and **Brues**, C. T. Wood's Holl, Mass., Mar. Biol. Lab. Bull., 5, 1903, (24).

——— *testa*, life history. **Rucker**, A. Austin, Cont. Zool. Lab. Univ. Tex., No. 44, in Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (75-77).

*Myrmecosalius* n. gen., *M. nigriceps* n. sp. **Ashmead**, W. H. Washington, D.C., Proc. Ent. Soc., 5, 1903, (307-308).

*Myrmilla* nn. spp. l'Afrique. **André**, E. Zs. Hymenopter., Teschendorf, 3, 1903, (88-137).

*Myrmilloides* n. gen. for *M. grandiceps*. **Blake**, **André**, E. in Wytsman, P. Genera Insectorum. Bruxelles, 1902, (16, 19, 27).

*Myzine apimacula* Cam. India. **Nurse**, C. G. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (401).

*Notogona* n. spp. Bengal. **Cameron**, P. London, Trans. Ent. Soc., 1903, (117-126).

——— *nigripennis* : *occidentalis* n. subsp. **Viereck**, H. L. Philadelphia, Pa., Proc. Acad. Nat. Sci., 54, 1902, (728-743).

*Odontophotopsis* n. gen., *O. clandestinus*, *O. exogyrus*, *O. succineus* nn. spp. California. **Viereck**, H. L. l.c. (728-743).

*Oxybelus tegularis* n. sp. Tenerife. **Saunders**, E. London, Trans. Ent. Soc., 1903, (210-211).

*Palarus* nn. spp. Deesa. **Nurse**, C. G. Bombay, J. Nat. Hist. Soc., 15, 1903, (4-6).

*Passaloecus dudgeoni* n. sp. Kangra Valley and Punjab. **Nurse**, C. G. l.c. (12).

*Pepsis* nn. spp. **Cameron**, P. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., 29, 1903, (226).

——— *persephone* n. sp. Brazil. **Schrottiky**, C. Zs. Hymenopter., Teschendorf, 3, 1903, (39-45).

*Photomorphus* n. gen., *P. alogus*, *P. johnsoni* nn. spp. **Viereck**, H. L. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (249).

*Photopsis lingulatus* n. sp. California. **Viereck**, H. L. Philadelphia, Pa., Proc. Acad. Nat. Sci., 54, 1902, (728-743).

*Plenoculus* nn. spp. New Jersey. **Viereck**, H. L. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (71-74).

*Pompilus* nn. spp. India. **Nurse**, C. G. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (511-513).

*Promecilla* n. gen. **André**, G. in Wytsman, P. Genera Insectorum. Bruxelles, 1902, (14, 30).

*Psen atratus* im Marke eines Reb-schenfels. **Lüftner**, G. Mitt. Weinbau, Geisenheim, 15, 1903, (108-109).

——— *kashmirensis* n. sp. Kashmir. **Nurse**, C. G. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (520-521).

——— *refractus* n. sp. Mt. Abu. **Nurse**, C. G. Bombay, J. Nat. Hist. Soc., 15, 1903, (11).

*Pseudagenia marpesia* n. sp. **Bingham**, C. T. Fascic. Malay. Zool., 2, App., (iv).

——— *mutilata* n. sp. India. **Nurse**, C. G. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (403).

*Salinus* nn. spp. **Cameron**, P. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., 29, 1903, (228).

——— nn. spp. Brazil. **Schrottiky**, C. Zs. Hymenopter., Teschendorf, 3, 1903, (39-40).

——— *avidus* n. sp. India. **Nurse**, C. G. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (403).

*Sceliphron* nn. spp. Brazil. **Schrottiky**, C. Zs. Hymenopter., Teschendorf, 3, 1903, (41, 42).

*Scolia*, description of species. India. **Nurse**, C. G. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (401-402).

——— *robinsoni* n. sp. **Bingham**, C. T. Fascic. Malay. Zool., 2, App., (iv).

*Spheg* nn. spp. Deesa and Quetta. **Nurse**, C. G. Bombay, J. Nat. Hist. Soc., 15, 1903, (10-11).

——— (*Harpactopus*) *edwardsi* n. sp. **Cameron**, P. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., 29, 1903, (230).

*Stigmus cucullus* n. sp. Kangra Valley. Nurse, C. G. Bombay, J. Nat. Hist. Soc., 15, 1903, (12).

*Stizus* nn. spp. India. Nurse, C. G. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (522-523).

—— *poecilopterus* Handlirsch  
♂. Morice, F. D. l.c. 12, 1903, (614-615).

—— *tridens* n. sp. Loire. Dominique, J. Nantes, Bul. soc. sci. nat., 12, 1902, (XXVII-XXXVIII).

*Tachysphex* nn. spp. Bengal. Cameron, P. London, Trans. Ent. Soc., 1903, (126-129).

—— nn. spp. Kohl, F. F. Wien, Verh. ZoolBot. Ges., 51, 1901, (777-784, 1 Taf.).

—— nn. spp. India. Nurse, C. G. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (515-518).

*Tachytes* nn. spp. Mt. Abu, Deesa. Nurse, C. G. Bombay, J. Nat. Hist. Soc., 15, 1903, (3).

—— nn. spp. India. Nurse, C. G. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (514-515).

—— nn spp. Brazil. Schrottky, C. Zs. Hymenopter., Teschendorf, 3, 1903, (43-44).

*Tallium* n. gen. André, E. in Wytsman, P. Genera Insectorum. Bruxelles, 1902, (16, 19, 45).

*Tiphia exacta* n. sp. Kashmir. Nurse, C. G. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (400-401).

—— *olontogaster* n. sp. New Mexico. Viereck, H. L. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., 29, 1902-1903, (71).

—— *rothneyi* n. sp. Assam. Cameron, P. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (324-325).

*Trypoxylon mediator* n. sp. Quetta. Nurse, C. G. Bombay, J. Nat. Hist. Soc., 15, 1903, (8).

—— *responsum* n. sp. India. Nurse, C. G. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (515-518).

*Xylocerabro slossonae* n. sp. (nom. nud.). Ashmead in Slosson, A. T. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (4-8).

## FORMICIDAE.

## GENERAL.

André, E. Hyménoptères formicides récoltés au Japon, par M. Harmand. Bul. Muséum, Paris, 1903, (128).

Bingham, C. T. The fauna of British India, including Ceylon and Burma. Published under the authority of the Secretary of State for India in Council. Edited by W. T. Blanford. Hymenoptera, Vol. II. Ants and Cuckoo-wasps. London, 1903, (XIX + 506, 1 pl. and illustr.). 8vo. [Review], Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (190-191).

Brandicourt, V. Pucerons et fourmis. Nature, Paris, 30, (2<sup>e</sup> semest.), 1902, (202).

Emery, C. A propos de la classification des Formicides; réponse à l'article publié sous le même titre par M. le prof. Forel. Bruxelles, Ann. Soc. ent. Belgique, 45, 1901, (197-198).

Escherich, K. Ueber die Biologie der Ameisen. Uebersicht über die neueren Arbeiten. Zool. Centralbl., Leipzig, 10, 1903, (209-250).

Falde, A. M. Experiments with ants induced to swim. Philadelphia, Pa., Proc. Acad. Nat. Sci., 55, 1903, (617-624).

—— Artificial mixed nests of ants. Wood's Holl, Mass., Mar. Biol. Lab. Bull., 5, 1903, (320-325).

—— A cause of feud between ants of the same species living in different communities. l.c. (326-329).

Forel, A. Faune myrmécologique des noyers dans le canton de Vaud. Lausanne, Bul. Soc. Sci. Nat., (Sér. 4), 39, 1903, (83-94).

—— Les fourmis des Îles Andamans et Nicobares. Rev. Suisse Zool., Genève, 11, 1903, (399-411).

—— A propos de la classification des fourmis. Bruxelles, Ann. Soc. ent. Belgique, 45, 1901, (136-141).

—— Additional species of *Camponotinae* from India, with notes and localities. Bombay, J. Nat. Hist. Soc., 14, 1903, (710).

—— Additional species of *Dolichoderinae* from India, with notes and localities. l.c. (712).

**Forel, A.** Additional species of *Ponerinae* from India, with notes and localities. *l.c.* (713).

— The social life of ants. [Translated by F. C. de Sumichrast.] *Int. Mon.*, Burlington, Vt., **5**, 1902, (563-579, 710-724).

**Holliday, M.** A study of some ergatogynic ants. *Zool. Jahrb.*, Jena, *Abt. f. Syst.*, **19**, 1903, (293-328).

**Howard, L. O.** Symbiosis of *Formicidae* with *Entilia sinuata*. Washington, D C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **30**, 1901, (75-78).

**Busakij, M.** Die Ameisenfauna der astrachanischen Kirgisiensteppe. (Russ.) St. Peterburg, *Hor. Soc. Ent. Ross.*, **36**, 1903, (294-316).

— Fourmis de la province Transbaicalienne. (Russ.) *Rev. Russ. Ent.*, Jaroslavl, **3**, 1903, (205-207).

— Die Ameisen der Umgebungen des Aral-Sees. (Russ.) *Tascent, Izv. Turk. Otd. Russ. Geogr. Obsč.*, **3**, 1902, livr. I, (1-25).

**Viehmeier, H.** Kleinere Beiträge zur Biologie einiger Ameisengäste. *Allg. Zs. Ent.*, Neudamm, **8**, 1903, (15-17).

**Wheeler, W. M.** . . . Mutation in the *Formicidae*. New York, N.Y., *Bull. Amer. Mus. Nat. Hist.*, **19**, 1903, (639-651). Separate. 24.5 cm.

— The origin of female and worker ants from the eggs of parthenogenic workers. *Science*, New York, N.Y., (N. Ser.), **18**, 1903, (830-833).

— Notices biologiques sur les fourmis mexicaines. Bruxelles, *Ann. Soc. ent. Belgique*, **45**, 1901, (199-205).

#### SPECIAL.

*Acantholepis* nn. spp. Australia. **Forel, A.** *Rev. Suisse Zool.*, Genève, **10**, 1902, (477-482).

*Acanthomyrmex luciolae* Emery, notes. **Forel, A.** *Bombay, J. Nat. Hist. Soc.*, **14**, 1903, (696).

*Aenictus* nn. spp. **Bingham, C. T.** *Hym. Brit. Ind.*, **II**, 1903, (11).

— *steindachneri* n. sp. Südafrika. **Mayr, G.** *Wien, Ann. Nat. Hist. Hofmus.*, **16**, 1901, (1-30, 2 Taf.).

*Alfaria emeryi* n. sp. Colombia. **Forel, A.** *Rev. Suisse Zool.*, Genève, **9**, 1901, (326).

*Anochetus punctaticeps* n. sp. Südafrika. **Mayr, G.** *Wien, Ann. Nat. Hist. Hofmus.*, **16**, 1901, (1-30, 2 Taf.).

— *talpa* n. sp. **Forel, A.** *Rev. Suisse Zool.*, Genève, **9**, 1901, (351).

*Camponotus* nn. varr. **Forel, A.** *l.c.* **10**, 1902, (493-508).

— *apostolus* n. sp., *C. emeryodicatus* n. nom. = *C. emeryi* **Forel, A.** *Bruxelles, Ann. Soc. ent. Belgique*, **45**, 1901, (369-371).

— *maculatus* F. subsp. *pictiventris* n. subsp. Südafrika. **Mayr, G.** *Wien, Ann. Nat. Hist. Hofmus.*, **16**, 1901, (1-30, 2 Taf.).

— *reginae* n. sp. **Forel, A.** In: *Kunene-Sambesi-Expedition*, Berlin, 1903, (559-564).

*Cardiocondyla*, Emery, tableau des ouvrières, *C. wrightonii* **Forel**, from Poona, notes. **Forel, A.** *Bombay, J. Nat. Hist. Soc.*, **14**, 1903, (688-689).

— *koshurnikovi* n. sp. Turkestan ross. **Busakij, M.** *Tascent, Izv. Turk. Otd. Russ. Geogr. Obsč.*, **3**, 1902, livr. I, (1-25).

— *parvinoda* n. sp. India. **Forel, A.** *Rev. Suisse Zool.*, Genève, **10**, 1902, (213).

*Carebara lignata* Westwood from Rangoon, notes. **Forel, A.** *l.c.* (691).

*Cataulacus* Smith, tableaux des ouvrières, list of species with localities. **Forel, A.** *l.c.* (706).

— nn. spp. **Forel, A.** In: *Kunene-Sambesi-Expedition*, Berlin, 1903, (559-564).

— *brookiei* n. sp. **Forel, A.** *Bruxelles, Ann. Soc. ent. Belgique*, **45**, 1901, (378).

— *rugosus* **Forel** subsp. *micans* n. subsp. Südafrika. **Mayr, G.** *Wien, Ann. Nat. Hist. Hofmus.*, **16**, 1901, (1-30, 2 Taf.).

*Centromyrmex greeni* n. sp. **Forel, A.** *Rev. Suisse. Zool.*, Genève, **9**, 1901, (325).

*Cerapachys cribrinodis* var. *natalensis* n. var. **Forel**, A. l.c. (335).

——— *turneri* n. sp. **Forel**, A. l.c. 10, 1902, (405).

*Colobopsis testacea* n. sp. Ceylon. **Bingham**, C. T. Hym. Brit. Ind., II, 1903, (347).

*Cremastogaster*. California. **Cockerell**, T. D. A. Los Angeles, Bull., So. Cal. Acad. Sci., 1, 1902, (40-41).

——— tableau des ouvrières, list of species with localities. **Forel**, A. Bombay, J. Nat. Hist. Soc., 14, 1903, (679, 682).

——— nn. spp. nn. varr. India. **Forel**, A. Rev. Suisse Zool., Genève, 10, 1902, (199-208, 405-548).

——— *opaca* Mayr var., *dentinodis* n. var. Mexico. **Wheeler**, W. M. Bruxelles, Ann. Soc. Ent. Belgique, 45, 1901, (130).

——— *opaciceps* n. sp. Südafrika. **Mayr**, G. Wien, Ann. NatHist. Hofmus., 16, 1901, (130, 2 Taf.).

——— *quadriformis* var., *gracilior* n. var. **Forel**, A. Bruxelles, Ann. Soc. ent. Belgique, 45, 1901, (391).

——— nn. spp. **Forel**, A. l.c. (374, 376).

*Cryptocerus* nn. spp. Mexico. **Wheeler**, W. M. l.c. (125-126).

——— *hamulus* Roger var., *haytianus* n. var. **Forel**, A. l.c. (337).

*Cyphomyrmex rimosus* var. *major* n. var. **Wheeler**, W. M. l.c. (125).

*Diacamma* nn. varr. **Forel**, A. Rev. Suisse Zool., Genève, 11, 1903, (400-401).

*Diplomorium longipenne* n. sp. Südafrika. **Mayr**, G. Wien, Ann. NatHist. Hofmus., 16, 1901, (1-30, 2 Taf.).

*Dolichoderus burmanicus* n. sp. Burma. **Bingham**, C. T. Hym. Brit. Ind., II, 1903, (293).

——— *turneri* n. sp. Queensland. **Forel**, A. Rev. Suisse Zool., Genève, 10, 1902, (462).

*Dorylus (Rhogmus) fimbriatus* Schuck., Weibchen. **Brauns**, J. Zs. Hymenopter., Teschendorf, 3, 1903, (294-298).

*Dorymyrmex*, tableau dichotomique des ouvrières de ce genre, *D. baeri* n. sp. **André**, E. l.c. (364-365).

*Eciton (Acamatus) goeldii* n. sp. **Forel**, A. Rev. Suisse Zool., Genève, 9, 1901, (352).

*Ectomma (Mictoponera* n. subgen.) *diehlii* n. sp. **Forel**, A. Bruxelles, Ann. Soc. ent. Belgique, 45, 1901, (372).

*Emeryella* n. gen., *E. schmitti* n. sp. **Forel**, A. l.c. (334-335).

*Epipheidole* n. gen., *E. inquilina* n. sp. **Wheeler**, W. M. New York, N.Y., Bull. Amer. Mus. Nat. Hist., 19, 1902, (653-683).

*Erebomyrma* n. gen., *E. longii* n. sp. Texas. **Wheeler**, W. M. Austin, Cont. Zool. Lab. Univ. Tex., No. 45, in Wood's Holl, Mass., Mar. Biol. Lab. Bull., 4, 1903, (137-148).

*Eumecopone* n. subgen. of *neoponera* Emery. **Forel**, A. Bruxelles, Ann. Soc. ent. Belgique, 45, 1901, (335-336).

*Euponera* nn. spp. **Forel**, A. Rev. Suisse Zool., Genève, 9, 1901, (332-343).

——— *fossigera* n. sp. Südafrika. **Mayr**, G. Wien, Ann. NatHist., Hofmus., 16, 1901, (1-30, 2 Taf.).

——— (*Pseudoponera*) *sharpi* n. sp. **Forel**, A. Bruxelles, Ann. Soc. ent. Belgique, 45, 1901, (379).

*Formica* nn. spp. et n. var. **Wheeler**, W. M. New York, N.Y., Bull. Amer. Mus. Nat. Hist., 19, 1903, (643-648).

——— *sanguinea*, Brutpflege. **Wasmann**, E. Insektenbörse, Leipzig, 20, 1903, (275-276).

——— *fusca* var. *densiventris* n. var. New Mexico. **Viereck**, H. L. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., 29, 1902-1903, (74).

*Ilagensia* n. subgen. (*Megaloponera*). **Forel**, A. Rev. Suisse Zool., Genève, 9, 1903, (333).

*Holcomyrmez* Mayr., tableau des ouvrières; list of species with localities. **Forel**, A. Bombay, J. Nat. Hist. Soc., 14, 1903, (692).

——— nn. spp. Sahara algérien. **Forel**, A. Bruxelles, Ann. Soc. ent. Belgique, 46, 1902, (150-151).

*Iridomyrmex* nn. spp. nn. varr. Australia. **Forel**, A. Rev. Suisse Zool., Genève, **10**, 1902, (466-470).

— *myrmecodiae* var. *andamensis* n. var. **Forel**, A. l.c. **11**, 1903, (407).

*Lasius alieno-flavus* n. sp. Himalaya. **Bingham**, C. T. Hym. Brit. Ind., **II**, 1903, (341).

— *latipes*, physiology and habits. **Wheeler**, W. M. and **McClendon**, J. F. Austin, Cont. Zool. Lab. Univ. Tex., No. **46**, in Wood's Holl, Mass., Mar. Biol. Lab. Bull., **4**, 1903, (149-163).

— (*Acanthomyrma*) *murphii* n. sp. **Forel**, A. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (367-369).

— *umbratus*: *subumbratus* n. subsp. New Mexico. **Viereck**, H. I. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1902-1903, (73).

*Leptanilla havilandi* n. sp. **Forel**, A. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (373).

*Leptogenys* nn. spp., nn. varr. **Forel**, A. Rev. Suisse Zool., Genève, **9**, 1901, (328-332).

— *wheeleri* n. sp. Mexico. **Wheeler**, W. M. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (123).

*Leptothorax* Mayr, note on the genus, list of species with localities. **Forel**, A. Bombay, J. Nat. Hist. Soc., **14**, 1903, (698).

— Revision of the N. American spp. with descriptions of nn. spp. **Wheeler**, W. M. Austin, Cont. Zool. Lab. Univ. Tex., No. **48**, in Philadelphia, Pa., Proc. Acad. Nat. Sci., **55**, 1903, (215-260, with pl.).

— nn. spp. India. **Forel**, A. Rev. Suisse Zool., Genève, **10**, 1902, (228-231).

— *canadensis*: *obscurus* n. subsp. New Mexico. **Viereck**, H. I. Philadelphia, Pa. Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1902-1903, (72).

— *congruus* var. *spiniosior* n. var. Japon. **Forel**, A. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (371).

— *denticulatus* n. sp. Südafrika. **Mayr**, G. Wien, Ann. Nat. Hist. Hofmus., **16**, 1901, (1-30, 2 Taf.).

*Leptothorax petiolatus* n. sp. Mexico. **Wheeler**, W. M. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (129).

— (*Temnathorax*) *semenovi* n. sp. Transcaasia, Gouv. Astrachan. **Russkij**, M. St. Peterburg, Hor. Soc. Ent. Ross., **36**, 1903, (311).

*Liomyrmex aurianus* Emery, from Tenasserim, note on the species. **Forel**, A. Bombay, J. Nat. Hist. Soc., **14**, 1903, (699).

*Lobopelta moelleri* n. sp. India. **Bingham**, C. T. Hym. Brit. Ind., **II**, 1903, (67).

*Lophomyrmex* Emery, tableau des ouvrières, list of species and localities. **Forel**, A. Bombay, J. Nat. Hist. Soc., **14**, 1903, (695).

*Macromischa lucayensis* n. sp. **Forel**, A. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (340-342).

*Mayriella* n. gen., *M. abstinens* n. sp. Queensland. **Forel**, A. Rev. Suisse Zool., Genève, **10**, 1902, (454).

*Megaloponera* (*Hagensia* n. subgen.) *havilandi* n. sp. **Forel**, A. l.c. **9**, 1901, (333).

*Melophorus* nn. spp. Australia. **Forel**, A. l.c. **10**, 1902, (483-488).

*Meranoplus* Smith, tableau des ouvrières, list of species with localities. **Forel**, A. Bombay, J. Nat. Hist. Soc., **14**, 1903, (705).

— nn. spp. India. **Forel**, A. Rev. Suisse Zool., Genève, **10**, 1902, (240-241).

— *diversus*: *unicolor* n. subsp. *M. hirsutus*: *minor* n. subsp. **Forel**, A. l.c. (455-457).

— *simoni*: *nitidiventris* n. subsp. Südafrika. **Mayr**, G. Wien, Ann. Nat. Hist. Hofmus., **16**, 1901, (1-30, mit 2 Taf.).

*Mictoponera* n. subgen. (*Ectatomma* Sm.). **Forel**, A. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (372).

*Monomorium* Mayr., tableau des ouvrières, list of species with localities. **Forel**, A. Bombay, J. Nat. Hist. Soc., **14**, 1903, (685-687).

— nn. spp. nn. varr. **Forel**, A. Rev. Suisse Zool., Genève, **10**, 1902, (209-213).

*Monomorium* nn. spp. Australie.  
Forel, A. l.c. (440-445).

——— *antipodum* n. sp. Forel,  
A. Bruxelles, Ann. Soc. ent. Belgique,  
45, 1901, (377).

——— *braunsi* n. sp. Südafrika.  
Mayr, (t. Wien, Ann. NatHist. Hofmus.,  
16, 1901, (1-30, 2 Taf.).

——— *heyeri* n. sp. Forel, A.  
Bruxelles, Ann. Soc. ent. Belgique, 45,  
1901, (389).

*Myopopone moelleri* n. sp. India.  
Bingham, C. T. Hym. Brit. Ind., II,  
1903, (34).

*Myrmecia forficata* Fabr. and *M.*  
*sanguinea* Smith in Victoria. Barker,  
E. E. Vict. Nat., Melbourne, 20, 1903,  
(105-111).

*Myrmecina rugosa* n. sp. Queens-  
land. Forel, A. Rev. Suisse Zool.,  
Genève, 10, 1902, (438).

——— *striata* Emery, from  
Tenasserin, note on the species. Forel,  
A. Bombay, J. Nat. Hist. Soc., 14,  
1903, (699).

*Myrmecocystus foreli* n. sp. Trans-  
caspiæ. (Russ.) Ruzsiki, M. Rev.  
Russ. Ent., Jaroslavl, 3, 1903, (36-37).

——— *lameerei* n. sp. Sahara  
algerien. Forel, A. Bruxelles, Ann.  
Soc. ent. Belgique, 46, 1902, (156-157).

*Myrmecodia echinata* aus Sumatra.  
Fischer, E. Bern, Mitt. Natf. Ges.,  
1903, (XI).

*Myrmica* Latr., tableau des ouvrières,  
list of species with localities. Forel, A.  
Bombay, J. Nat. Hist. Soc., 14, 1903,  
(696).

——— nn. spp. India. Forel,  
A. Rev. Suisse Zool., Genève, 10, 1902,  
(226).

——— *hergi* n. sp. Turkestan  
ross. Ruzsiki, M. Taskent, Izv. Turk.  
Otd. Russ. Geogr. Obsč., 3, 1902, livr.  
I, (1-25).

*Myrmicaria* Saunders, notes on species  
of, with localities. Forel, A. Bombay,  
J. Nat. Hist. Soc., 14, 1903, (708).

——— *baumii* n. sp. Forel, A.  
In: Kunene-Sambesi-Expedition, Berlin,  
1903, (559-564).

*Neoponera* nn. spp. Forel, A. Rev.  
Suisse Zool., Genève, 6, 1901, (348-  
349).

——— *agilis* n. sp. Forel, A.  
Bruxelles, Ann. Soc. ent. Belgique, 45,  
1901, (336).

*Oligomyrmex* Mayr., note, list of  
species with localities. Forel, A.  
Bombay, J. Nat. Hist. Soc., 14, 1903,  
(689, 690).

——— nn. spp. India. Forel, A.  
Rev. Suisse Zool., Genève, 10, 1902,  
(214-218).

——— *corniger* n. sp. Australie.  
Forel, A. l.c. (492).

*Oxygyne* n. subgen. of *Cremastogaster*.  
Forel, A. Bruxelles, Ann. Soc. ent.  
Belgique, 45, 1901, (374-376).

*Ozymyrmex* nn. spp. Forel, A.  
In: Kunene-Sambesi-Expedition, Berlin,  
1903, (559-564).

*Pachycondyla* nn. spp. et var. Forel,  
A. Rev. Suisse Zool., Genève, 9, 1903,  
(347).

——— *fuscoatra* Roger var.,  
*ccarensis* n. var. Forel, A. Bruxelles,  
Ann. Soc. ent. Belgique, 45, 1901, (336).

——— (*Bothroponeura*) *picardi* n.  
sp. Forel, A. In: Kunene-Sambesi-  
Expedition, Berlin, 1903, (559-564).

*Pheidole* nn. spp. India. Bingham,  
C. T. Hym. Brit. Ind., II, 1903, (228-  
264).

——— nn. spp. Forel, A.  
Bruxelles, Ann. Soc. ent. Belgique, 45,  
1901, (348-366).

——— nn. spp. nn. varr. Forel,  
A. Rev. Suisse Zool., Genève, 10, 1902,  
(414-437).

——— nn. spp. nn. varr. India,  
Ceylon. Forel, A. l.c. (189-198).

——— nn. spp. Südafrika. Mayr,  
G. Wien, Ann. NatHist. Hofmus., 16,  
1901, (1-30, 4 Taf.).

——— nn. spp. Mexico.  
Wheeler, W. M. Bruxelles, Ann. Soc.  
ent. Belgique, 45, 1901, (131-133).

——— *termitobia* n. sp. Forel,  
A. l.c. (390).

*Pheidologeton* Mayr., tableau des ouvrières, list of species with localities. **Forel**, A. Bombay, J. Nat. Hist. Soc., **14**, 1903, (690, 691).

——— *lamellifrons* n. sp. India. **Forel**, A. Rev. Suisse Zool., Genève, **10**, 1902, (219).

*Plagiolepis dichroa* n. sp. **Forel**, A. l.c. (235).

——— *molleri* n. sp. India. **Bingham**, C. T. Hym. Ind. Brit., **II**, 1903, (321).

——— *van der kelleni* n. sp. **Forel**, A. In: Kunene-Sumbesi-Expedition, Berlin, 1903, (559-564).

*Platythyrea angusta* n. sp., *P. coxalis* var., *tritrichleri* n. var. **Forel**, A. Rev. Suisse Zool., Genève, **9**, 1901, (336, 338).

*Pogonomyrmex schmitti* n. sp. **Forel**, A. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (339-340).

*Polyrhaxis* nn. spp. **Bingham**, C. T. Hym. Brit. Ind., **II**, 1903, (391-403).

——— n. varr. **Forel**, A. Rev. Suisse Zool., Genève, **10**, 1902, (515-532).

*Ponera coarctata boerorum* n. st. **Forel**, A. l.c. **9**, 1901, (339).

*Prenolepis caledonica* n. sp., *P. braueri* var., *glabrior* n. var. **Forel**, A. l.c. **10**, 1902, (490-491).

*Pristomyrmex* Mayr., tableau des ouvrières, list of species with localities. **Forel**, A. Bombay, J. Nat. Hist. Soc., **14**, 1903, (696).

*Probolomyrmex* n. gen., *P. filiformis* n. sp. Südafrika. **Mayr**, G. Wien, Ann. NatHist. Hofmus., **16**, 1901, (1-30, 2 Taf.).

*Procryptocerus schmitti* n. sp. **Forel**, A. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (338).

*Proformica* n. subgen. **Ruzsaki**, M. St. Peterburg, Hor. Soc. Ent. Ross., **36**, 1903, (303).

*Pseudomyrma elongata* Mayr var. *cubaensis* n. var. **Forel**, A. Bruxelles, Ann. Soc. Ent. Belgique, **45**, 1901, (342).

*Rhopalomastix* **Forel**, note on the genus; *R. rothneyi* **Forel**, from Barrackpore, notes. **Forel**, A. Bombay, J. Nat. Hist. Soc., **14**, 1903, (692).

*Rhopt. omyrmex* n. gen., *R. globulinodis*, *R. transversinodis* nn. spp. Südafrika. **Mayr**, G. Wien, Ann. Nat. Hist. Hofmus., **16**, 1901, (1-33, 2 Taf.).

——— Note on species. **Forel**, A. Bombay, J. Nat. Hist. Soc., **14**, 1903, (700).

——— *wroughtonii* n. sp. India. **Forel**, A. Rev. Suisse Zool., Genève, **10**, 1902, (231).

*Sima Roger*, tableau des espèces, list of species with localities. **Forel**, A. Bombay, J. Nat. Hist. Soc., **14**, 1903, (708, 709).

——— nn. spp., nn. subsp. **Forel**, A. Rev. Suisse Zool., Genève, **10**, 1902, (247-249, 402-404).

——— *nitens* n. sp. **Bingham**, C. T. Hym. Brit. Ind., **II**, 1903, (402-403).

*Solenopsis* Westw., tableau des ouvrières, list of species with localities. **Forel**, A. Bombay, J. Nat. Hist. Soc., **24**, 1903, (689).

——— *lou* n. sp. Sahara algérien. **Forel**, A. Bruxelles, Ann. Soc. ent. Belgique, **46**, 1903, (152-153).

——— *nitens* n. sp. Ceylon. **Bingham**, C. T. Hym. Brit. Ind., **II**, 1903, (160).

——— *pergandi* n. sp. **Forel**, A. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (343).

——— *semilaevis* n. sp. Südafrika. **Mayr**, G. Wien, Ann. NatHist. Hofmus., **16**, 1901, (1-30, 2 Taf.).

——— *wroughtonii* n. sp. India. **Forel**, A. Rev. Suisse Zool., Genève, **10**, 1902, (214).

*Stenamma* Westw., tableau des ouvrières, list of species with localities. **Forel**, A. Bombay, J. Nat. Hist. Soc., **14**, 1903, (693-694).

——— nn. spp. India. **Forel**, A. Rev. Suisse Zool., Genève, **10**, 1902, (220-225).

——— (*Messor*) *caviceps* n. sp. Sahara algérien. **Forel**, A. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1902, (147-156).

——— *feae*: *nicobarensis* n. st. **Forel**, A. Rev. Suisse Zool., Genève, **11**, 1903, (405).

*Stenamma fulvum piceum*, general ethology. **Fielde**, A. M. Philadelphia, Pa., Proc. Acad. Nat. Sci., **54**, 1902, [1903], (599-625).

general ethology. **Fielde** A. M. l.c. **55**, 1903, (491-495).

———— *vesticoodi* Steph. var., *milanum* n. var. **Forel**, A. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (347).

*Stereomyrmex horni* Emery, note on the species from Ceylon. **Forel**, A. Bombay, J. Nat. Hist. Soc., **14**, 1903, (696).

*Stictoponera costata* var. *unicolor* n. var. **Forel**, A. Rev. Suisse Zool., Genève, **9**, 1901, (335).

*Strumigenys* Smith, tableau des ouvrières, list of species with localities. **Forel**, A. Bombay, J. Nat. Hist. Soc., **14**, 1903, (707).

———— *clypeata* Roger, var. *pilinasii* n. var. **Forel**, A. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (339).

———— *emarginata* n. sp. Südafrika. **Mayr**, G. Wien, Ann. NatHist. Hofmus., **16**, 1901, (1-30, 2 Taf.).

———— *guttulata* n. sp. **Forel**, A. Rev. Suisse Zool., Genève, **10**, 1902, (458).

———— *smythiesii* n. sp., *S. godefroyi* var. *indica* n. var. **Forel**, A. l.c. (242-243).

*Tapinoma andamanense* n. sp. **Forel**, A. l.c. **11**, 1903, (407).

*Tetramorium* Mayr., tableau des ouvrières, list of species with localities. **Forel**, A. Bombay, J. Nat. Hist. Soc., **14**, 1903, (700).

———— nn. spp. India. **Forel**, A. Rev. Suisse Zool., Genève, **10**, 1902, (232-238).

———— Südafrika. **Mayr**, G. Wien, Ann. NatHist. Hofmus., **16**, 1901, (1-30, 2 Taf.).

———— *nursei* n. sp. **Bingham**, C. T. Hym. Brit. Ind., **II**, 1903, (181).

———— (*Xiphomyrmex*) *turneri* n. sp. Queensland. **Forel**, A. Rev. Suisse Zool., Genève, **10**, 1902, (447).

———— *cheeleri* n. sp. Mexico. **Wheeler**, W. M. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (128).

(N 2-9053)

*Trapeziopelta hollandi* n. sp. **Forel**, A. Rev. Suisse Zool., Genève, **9**, 1901, (325).

*Trichomyrmex rogeri* Mayr, from Ceylon, note on the species. **Forel**, A. Bombay, J. Nat. Hist. Soc., **14**, 1903, (679-715).

*Triglyphothrix* Forel, tableau des ouvrières, list of species with localities. **Forel**, A. l.c. (703-704).

———— nn. spp. India. **Forel**, A. Rev. Suisse Zool., Genève, **10**, 1902, (239-240).

———— *microps* n. sp. Südafrika. **Mayr**, G. Wien, Ann. NatHist. Hofmus., **16**, 1901, (1-30, 2 Taf.).

*Trigonoyaster recurispinosus* Forel, note on the species from Poona. **Forel**, A. Bombay, J. Nat. Hist. Soc., **14**, 1903, (699).

*Vollenhorvia laevithorax* Emery from Tenasserim, note on the species. **Forel**, A. l.c. (699).

———— *rufiventris* n. sp. **Forel**, A. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (374).

## TUBULIFERA.

### CHRYSIDIDAE.

#### GENERAL.

**Du Buysson**, R. Sur quelques Chrysidides du Musée de Vienne. Wien, Ann. NatHist. Hofmus., **16**, 1901, (97-104).

**Morice**, F. D. *Chrysididae* collected by Col. Yerbury in Herefordshire, 1902. Ent. Mag., London, **39**, 1903, (113).

#### SPECIAL.

*Amisega aeneiceps* n. sp. Südamerika. **Ducke**, A. Zs. Hymenopter., Teschen-dorf, **3**, 1903, (129).

*Chrysis* nn. spp. **Bingham**, C. T. Hym. Brit. Ind., **II**, 1903, (440-487).

———— nn. spp. **Du Buysson**, R. Wien, Ann. NatHist. Hofmus., **16**, 1901, (97-104).

———— nn. spp. Südamerika. **Ducke**, A. Zs. Hymenopter., Teschen-dorf, **3**, 1903, (136, 226-232).



*Chrysis* nn. spp. India. **Nurse**, C. G. Entomologist, London, **36**, 1903, (10-12, 40-42).

——— species novae vel parum cognitae. 2 nn. spp. S.W. Siberia. **Semenov**, A. P. Rev. Russ. Ent., Jaroslavl, **3**, 1903, (397-400).

*Cleptes*. **Du Buysson**, R. Wien, Ann. NatHist. Hofmus., **16**, 1901, (97-104).

*Ellampus andinus* n. sp. Ecuador. **Cameron**, P. Entomologist, London, **36**, 1903, (161).

——— *glomeratus* n. sp. **Du Buysson**, R. Wien, Ann. NatHist. Hofmus., **16**, 1903, (97-104).

——— *harmandi* n. sp. Japon. **Du Buysson**, R. Bul. Muséum, Paris, **1903**, (126).

*Hedychrum haugianum* n. sp. Congo. **Du Buysson**, R. l.c. **1903**, (600).

*Holophris*. **Du Buysson**, R. Wien, Ann. NatHist. Hofmus., **16**, 1901, (97-104).

*Holopyga* nn. spp. **Du Buysson**, R. l.c. (97-104).

——— *nursei* n. sp. **Bingham**, C. T. Hym Brit. Ind., **II**, 1903, (423).

——— (*Hedychridium*) *pullidolimbata* n. sp. Südamerika. **Ducke**, A. Zs. Hymenopter., Teschendorf, **3**, 1903, (133).

*Notozus*. **Du Buysson**, R. Wien, Ann. NatHist. Hofmus., **16**, 1901, (97-104).

*Olochrysis semicuprea* n. sp. New Mexico. **Viereck**, H. L. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1902-1903, (70).

*Panorpidea* n. gen. verwandt mit *Panorpes*, *P. mocsaryi* n. sp. **Brauns**, H. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., **1**, 1903, (460-461).

*Pseudepyris flavipes* n. sp. Südamerika. **Ducke**, A. Zs. Hymenopter., Teschendorf, **3**, 1903, (132).

#### PARASITICA.

#### PROCTOTRUPIDAE.

##### GENERAL.

**Ashmead**, W. H. Classification of the pointed-tailed wasps, or the super-

family Proctotrypoidae. II. [Families *Diapriidae* and *Ceraphronidae*] New York, N.Y., J. Ent. Soc., **11**, 1903, (28-35).

**Ashmead**, W. H. Classification of the pointed-tailed wasps, or the super-family Proctotrypoidae. III. [Family *Scelionidae*]. l.c. (86-99).

##### SPECIAL.

*Auxopaedeutes* n. gen., *A. sodalis* n. sp. **Brues**, C. T. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (126-127).

*Caloteleia parvipennis* n. sp. **Melander**, A. L. and **Brues**, C. T. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **5**, 1903, (22).

*Diasomphalus harmandi* n. sp. Japan. **Du Buysson**, R. Bul. Muséum, Paris, **1903**, (126).

*Dryinus ormenidis* n. sp. **Ashmead**, W. H. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (192-193).

*Empyris subapterus* n. sp. **Melander**, A. L. and **Brues**, C. T. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **5**, 1903, (23).

*Galesus coralais* n. sp. (nom. nud.) **Ashmead** in **Slosson**, A. T. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (4-8).

*Gonatopus peculiaris* n. sp. **Brues**, C. T. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (25).

*Hemilexodes ambiguus* n. sp. **Brues**, C. T. l.c. (119-128, with pl.).

——— *rotundiceps* n. sp. (nom. nud.). **Ashmead** in **Slosson**, A. T. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (4-8).

*Idris nigricornis* n. sp. **Brues**, C. T. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (119-128, with pl.).

*Megaspilus alticola* n. sp. (nom. nud.). **Ashmead** in **Slosson**, A. T. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (4-8).

*Mesitius myrmecophilus* n. sp. **Brues**, C. T. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (119-128, with pl.).

*Perisemus fulvicornis*, note on the life-history. (Danish with an English summary) **Nielsen**, T. C. Kjöbenhavn, Ent. Medd., (Ser. 2), **2**, 1903, (105-109).

*Scelio ashmeadi* n. sp. New Mexico. **Viereck**, H. L. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1902-1903, (74).

## CHALCIDIDAE.

## GENERAL.

**Bloesch**, C. Einige Notizen über Cynipiden und Chalcidier aus der Umgegend von Laufenburg. Schaffhausen, Mitt. Schweiz. Entomol. Ges., **11**, 1903, (46-55).

**Kryger**, T. P. The Danish trimerous Chalcididae. Topographical Zoology. (Danish with a German Summary.) Kjöbenhavn, Ent. Medd., (Ser. 2), **2**, 1903, (192-197).

**Pierre**, Abbé. Chalcidides parasites de l'œuf, de la larve et de l'imago de *Lixus iridis* Oliv. Echange, Lyon, **19**, 1903, (108-110, 116-117, 132-133, 141-144).

## SPECIAL.

*Cheiloneurus sucezei* n. sp. **Ashmead**, W. H. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (192-193).

*Cirrospilus immaculatus* n. sp. (nom. nud.). **Ashmead** in **Slosson**, A. T. l.c. **13**, 1902, (4-8).

*Eupelmus ashmeadii* n. sp. **Melander**, A. L. and **Brues**, C. T. Wood's Holl, Mass., Mar. Biol. Lab. Bull., **5**, 1903, (21).

*Eurycephalus* n. gen., defined and differentiated from *Eerizotes* Forster, *E. alcocki* n. sp. from Calcutta. **Ashmead**, W. H. Calcutta, Ind. Mus. Notes, **5**, 1903, (62).

*Homalotylus slossonae* n. sp. (nom. nud.). **Ashmead** in **Slosson**, A. T. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (4-8).

(N 2-9053)

*Isosoma*, parasitism. **Webster**, F. M. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., No. **40**, 1903, (92-93).

——— life history and description; economics. **Webster**, F. M. l.c. No. **42**, 1903, (62). 23 cm.

*Smicra bimaculata* **Strecker**. **Bradley**, J. C. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (26).

*Syntasis diplosidis* n. sp. **Eckel**, L. S. l.c. (283).

*Syntomosphyrum esurus*, parasitism. **Marlatt**, C. L. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (138-139).

*Trigonoderus varipes* n. sp. New Mexico. **Viereck**, H. L. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1902-1903, (75).

## ICHNEUMONIDAE.

## GENERAL.

**Cameron**, P. Descriptions of twelve new genera and species of Ichneumonidae (*Heresiorechini* and *Amblypygi*) and three species of *Ampulex* from the Khasia hills, India. London, Trans. Ent. Soc., **1903**, (219-238).

**Habermehl**, [H.]. Neue Ichneumoniden aus Südwestdeutschland. Zs. Hymenopter., Teschen-dorf, **3**, 1903, (345-348).

——— Ueber Ichneumoniden. Varietäten und neue Arten. l.c. (97-104, 185-192, 217-225).

**Jacobs**, J. C. Catalogue des ichneumonides de la Belgique appartenant au groupe des Ophionides. Bruxelles, Ann. Soc. ent. Belgique, **47**, 1903, (200-212).

**Krieger**, R. Zur Synonymik der Ichneumoniden. Zs. Hymenopter., Teschen-dorf, **3**, 1903, (290-294).

**Morley**, C. Ichneumonidae collected by Col. Yerbury in Herefordshire, 1902. Ent. Mag., London, **39**, 1903, (113-114).

——— Ichneumonologia britannica. The Ichneumons of Great Britain. A descriptive account of the families, genera and species indigenous to the British Islands, together with notes as to classification, localities, habitats, hosts, etc. Ichneumoninae. Plymouth, 1903, (1 + 315, 1 pl.).

**Pic, M.** Diagnoses d'Ichneumoniens faisant partie de la collection Pic. Exchange, Lyon, 17, 1902, (57-58).

——— Les types d'Ichneumoniens de ma collection. *L.c.* (62, 70, 78); 19, 1903, (96, 104, 120, 136).

**Schmiedeknecht, O.** Opuscula Ichneumonologica. Fasc. I. II. Blankenburg i. Thür. (Selbstverlag, Druck v. W. Greve, Neubrandenburg), 1902-1903, (1-160). 23 cm.

——— Die Ichneumonidentribus der Anomalinen. Eine Uebersicht sämtlicher Gattungen sowie der paläarktischen Arten. *Zs. Hymenopter., Teschendorf*, 2, 1902, (357-368); 3, 1903, (1-8, 73-80, 171-176).

**Schulz, W. A.** Beiträge zur näheren Kenntnis der Schlupfwespenfamilie *Pelecinidae* Hal. München, SitzBer. Ak. Wiss., math.-phys. Cl., 33, 1903, (435-450, mit 1 Taf.).

**Stebbing, E. P.** Hymenopterous larva found in teak in Nilumbur parasitic on *Hyblaea pueria* var. *nigra*, note on its occurrence. Departmental Notes on Insects that affect Forestry, No. 2, Calcutta, 1903, (296). 25 cm.

**Strobl, J.** Ichneumoniden Steiermark. Graz, Mitt. Natw. Ver. Steierm., 1902, 1903, (3-100).

#### SPECIAL.

*Acanthojoppa* nn. spp. Assam. **Cameron, J.** Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (180-181).

——— nn. spp. Khasia. **Cameron, P.** *L.c.* 12, 1903, (370-371, 565-568).

*Achais* n. gen., *A. flavo-balteatus* n. sp. Khasia. **Cameron, P.** *L.c.* (366-368).

*Agathobanchus aequatus*, redescribed. **Bradley, J. C.** Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (141-146, with fig. in text).

*Aglaocryptus* n. gen., *A. curtimaculatus*, *A. striatifrons* nn. spp. Khasia Hills. **Cameron, P.** Manchester, Mem. Lit. Phil. Soc., 47, No. 14, 1903, (34-38).

*Aglaojoppa* nn. spp. Assam. **Cameron, P.** Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (177-180).

——— nn. spp. Khasia. **Cameron, P.** *L.c.* 12, 1903, (363-367).

*Algathia* nn. spp. Assam. **Cameron, P.** *L.c.* 11, 1903, (315-316).

——— *parvimaculata* n. sp. Khasia. **Cameron, P.** *L.c.* 12, 1903, (581-582).

*Amblyjoppa* nn. spp. Khasia. **Cameron, P.** *L.c.* (268-272).

*Amblyteles* nn. spp. et nn. var. **Pic, M.** Exchange, Lyon, 17, 1902, (58).

*Ancyra* n. gen., *A. flavomaculata* n. sp. Khasia Hills. **Cameron, P.** London, Trans. Ent. Soc., 1903, (228-229).

*Aperileptus clypeatus*, *A. pleuralis* n. sp. (nom. nud.). **Ashmead** in **Slosson, A. T.** Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (4-8).

——— *pleuralis* (nom. nud.). **Ashmead** (ms) in **Slosson, A. T.** *L.c.* (319-321).

*Atrometus flavifrons* n. sp. (nom. nud.). **Ashmead** in **Slosson, A. T.** *L.c.* (4-8).

*Bassus* nn. spp. Oesterreich. **Strobl, G.** Graz, Mitt. Natw. Ver. Steierm., 1902, 1903, (97).

*Bathyretes nidia* n. sp. New Mexico. **Viereck, H. L.** Philadelphia, Pa., Acad. Nat. Sci. Trans. Amer. Ent. Soc., 29, 1902-1903, (85).

*Benecles* n. gen., *B. rufomaculatus* n. sp. Ceylon. **Cameron, P.** Entomologist, London, 36, 1903, (260-261).

*Benyllus* n. gen., *B. rufus* n. sp. Khasia Hills. **Cameron, P.** London, Trans. Ent. Soc., 1903, (232-233).

*Buathra* n. gen., *B. rufiventris* n. sp. Khasia Hills. **Cameron, P.** *L.c.* (233-234).

*Caenocryptus bimaculatus*, Biologie. **Höppner, H.** Allg. Zs. Ent., Neudamm, 8, 1903, (194-202).

*Callajoppa* n. gen., *C. bilineata* n. sp. Japan. **Cameron, P.** Entomologist, London, 36, 1903, (236-237).

*Caspipina* n. gen., *C. ferruginea* n. sp. Khasia Hills. **Cameron, P.** London, Trans. Ent. Soc., 1903, (219).

——— *violaceipennis* n. sp. Khasia Hills. **Cameron, P.** Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (580).

*Cataglyptus splendens* n. sp. Oesterreich. **Strobl, G.** Graz, Mitt. Natw. Ver. Steierm., 1902, 1903, (29).

*Ceratocryptus* n. gen., *C. bituberculatus*, *C. tibialis* nn. spp. Khasia Hills. **Cameron**, P. Manchester, Mem. Lit. Phil. Soc., **47**, No. 14, 1903, (5-10).

*Charitojoppa varicolor* n. sp. Khasia. **Cameron**, P. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (573-574).

*Chiaglas* nn. spp. Khasia. **Cameron**, P. Lc. (578-580).

—— *raripes* n. sp. Assam. **Cameron**, P. Lc. **11**, 1903, (314-315).

*Chirotica inermis* n. sp. New Mexico. **Viereck**, H. L. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1902-1903, (83).

*Chlorocryptus* n. gen., *C. metallicus*, *C. coeruleus* nn. spp. Khasia Hills. **Cameron**, P. Manchester, Mem. Lit. Phil. Soc., **47**, No. 14, 1903, (34-38).

*Cnemocryptus* n. gen., *C. talidicornis* n. sp. Khasia Hills. **Cameron**, P. Lc. (38-40).

*Cnemopimpla* n. gen., *C. pilosa* n. sp. Ecuador. **Cameron**, P. Entomologist, London, **36**, 1903, (159-160).

*Corymephanes tarsalis* (nom. nud.). **Ashmead** (ms.) in **Slosson**, A. T. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (319-321).

*Cratichneumon* nn. spp. New Mexico. **Viereck**, H. L. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1902-1903, (77-79).

—— *artemis* n. sp., *C. pedalis* with 2 nn. varr. **Viereck**, H. L. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (87).

*Cryptopyge* nn. spp. **Szépligeti**, V. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., **1**, 1903, (480-481).

*Ctenichneumon plicatus* n. sp. **Morley**, C. Ichn. Brit., Plymouth, 1903, (172-173).

*Cyanoecryptus* n. gen., (*C. metallicus* n. sp. Ecuador. **Cameron**, P. Entomologist, London, **36**, 1903, (121-122).

*Cyanojoppa* nn. spp. Assam. **Cameron**, P. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (175-177).

*Dagathia* n. gen., *D. brunea* n. sp. Khasia Hills. **Cameron**, P. Manchester, Mem. Lit. Phil. Soc., **47**, No. 14, 1903, (29).

*Darachosia fulvipes* n. sp. Khasia Hills. **Cameron**, P. London, Trans. Ent. Soc., **1903**, (222-223).

*Delebaea* n. gen., *D. albomaculata*, *D. fuscipes* nn. spp. Ecuador. **Cameron**, P. Entomologist, London, **36**, 1903, (158-159).

*Diacantharius* n. gen., *D. elegans* n. sp. **Schmiedeknecht**, O. Opuscula Ichneumonologie. Fase. I, 1902, (20).

*Diadromus puniceus* var. *rufiscapus* n. var. **Plé**, M. Echange, Lyon, **17**, 1902, (58).

*Diatora compressa* n. sp. (nom. nud.) **Ashmead** (m.s.) in **Slosson**, A. T. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (319-321).

*Dimoetha* nn. spp. Khasia. **Cameron**, P. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (571-573).

*Dinotomus? bicolor* n. sp. ♀ **Szépligeti**, V. Budapest, Ann.-Hist. Nat. Mus. Nat. Hung., **1**, 1903, (483).

—— *spinosa* n. sp. **Morley**, C. Ichn. Brit., Plymouth, 1903, (11).

*Dolichoblastus* Strobl n. subg. aff. *Monoblastus* Hy. Oesterreich. **Strobl**, G. Graz, Mitt. Natw. Ver. Steierm., **1902**, 1903, (52).

*Dyseidopus tancouverensis* n. sp. **Bradley**, J. C. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (307-308).

*Echtrus sibiricus* n. sp. E. Siberia. **Kokujev**, N. Rev. Russ. Ent., Jaroslavl, **3**, 1903, (288).

*Eclytus haematothorax* n. sp. Oesterreich. **Strobl**, G. Graz, Mitt. Natw. Ver. Steierm., **1902**, 1903, (66).

*Enchisiades* n. gen., *E. rufipes* n. sp. Khasia Hills. **Cameron**, P. London, Trans. Ent. Soc., **1903**, (220-221).

*Ephialtes*, Weibchen bei seiner Eiablage. **Israël**, W. Gera, Jahresber. Ges. Natk., **43-45**, (1900-02), 1903, (82-84).

—— *insignis* n. sp. **Habermehl**, H. Zs. Hymenopter., Teschendorf, **3**, 1903, (192).

*Epitomus americanus* (nom. nud.) **Ashmead** (m.s.) in **Slosson**, A. T. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (319-321).

*Erromenus* nn. spp. Oesterreich. **Strobl**, G. Graz, Mitt. Natw. Ver. Steierm., 1902, 1903, (74-76).

*Erythrojoppa lineata* n. sp. Assam. **Cameron**, P. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (184-185).

— *nigromaculata* n. sp. Khasia. **Cameron**, P. l.c. 12, 1903, (368-369).

*Elia* n. gen., *E. striatifrons*, *E. laevifrons*, *E. plumbea*, *E. fusciventris*, *E. testaceipes*, *E. dentata*, *E. rufofemorata* nn. spp. Khasia Hills. **Cameron**, P. Manchester, Mem. Lit. Phil. Soc., 47, No. 14, 1903, (17-29).

*Euryproctus* nn. spp. Oesterreich. **Strobl**, G. Graz, Mitt. Natw. Ver. Steierm., 1902, 1903, (32-40).

*Eutanyacra* n. gen., *E. pallidicoxis* n. sp. Khasia Hills. **Cameron**, P. London, Trans. Ent. Soc., 1903, (227-228).

— *stramineomaculata* n. sp. Khasia. **Cameron**, P. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (576-577).

*Evirchoma* n. gen., *E. pallidimaculata* n. sp. Khasia Hills. **Cameron**, P. London, Trans. Ent. Soc., 1903, (223-224).

*Exochilum varicolor* n. sp. New Mexico. **Viereck**, H. L. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., 29, 1902-1903, (90).

*Exochus* nn. spp. Oesterreich. **Strobl**, G. Graz, Mitt. Natw. Ver. Steierm., 1902, 1903, (84-85).

*Fedalma* n. gen., *F. tricolor* n. sp. Assam. **Cameron**, P. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (318-319).

*Glypta areolata* n. sp. New Mexico. **Viereck**, H. L. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., 29, 1902-1903, (89).

*Gotra carinifrons* n. sp. Khasia Hills. **Cameron**, P. Manchester, Mem. Lit. Phil. Soc., 47, No. 14, 1903, (10-11).

*Habrojoppa* nn. spp. Khasia. **Cameron**, P. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (570-571).

*Hadrocryptus* n. gen., *H. nasutus* n. sp. Khasia Hills. **Cameron**, P.

Manchester, Mem. Lit. Phil. Soc., 47, No. 14, 1903, (11-14).

*Hadrodactylus affinis* (nom. nud.) n. sp. **Ashmead** in **Slosson**, A. T. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (4-8).

*Hadrojoppa forticornis* n. sp. Khasia. **Cameron**, P. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (272-273).

*Haliphera* n. gen., *H. maculipes* n. sp. India. **Cameron**, P. Entomologist, London, 36, 1903, (237-238).

*Harrimaniella* nn. spp. New Mexico. **Viereck**, H. L. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., 29, 1902-1903, (86-87).

*Harsuces* n. gen., *H. nigripes* n. sp. Himalaya. **Cameron**, P. Entomologist, London, 36, 1903, (238-239).

*Hemiteles* nn. spp. Khasia Hills. **Cameron**, P. Manchester, Mem. Lit. Phil. Soc., 47, No. 14, 1903, (44-46).

*Himertosoma quinquecinctum* n. sp. (nom. nud.) **Ashmead** (ms.) in **Slosson**, A. T. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (319-321).

*Ichneumon* nn. spp. et nn. varr. **Pic**, M. Echagne, Lyon, 17, 1902, (57-58).

— *montanus* n. sp. **Habermehl**, H. Zs. Hymenopter., Teschen-dorf, 3, 1903, (99).

— *venustus* n. sp. Transcaspiä, Turkestan. **Kokujev**, N. R. Rev. russ. ent., Jaroslavl', 3, 1903, (388-389).

*Idiolexis collaris* (nom. nud.) **Ashmead** (ms.) in **Slosson**, A. T. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (319-321).

*Ileanta* nn. spp. Khasia. **Cameron**, P. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (574-576).

*Imeria* n. gen., *I. albomaculata*. Assam. **Cameron**, P. l.c. 11, 1903, (173-174).

*Ischnopus subbifasciatus* n. sp. **Szépligeti**, V. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (482-483).

*Javra* n. gen., *J. parviceps*, *J. longicornis* nn. spp. Khasia Hills. **Cameron**, P. Manchester, Mem. Lit. Phil. Soc., 47, No. 14, 1903, (47-50).

*Joppa* nn. spp. **Szépligeti**, V. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (477-480).

*Kentrottryphon* n. gen., aff. *Trematopygus*, *K. longicaudatus* n. sp. Oesterreich. **Strobl**, G. Graz, Mitt. Natw. Ver. Steierm., 1902, 1903, (71).

*Labrorychus transeaspicus* n. sp. Transcaspiä. **Kokujev**, N. R. Rev. russ. ent., Jaroslavl, 3, 1903, (388-389).

*Lagenesta ferruginea* ♂ Assam. **Cameron**, P. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (185).

*Lamprojoppa fuscinervis* n. sp. Khasia. **Cameron**, P. l.c. 12, 1903, (574).

*Larsephna* n. gen., *L. varipes*, *L. flavolineata* nn. spp. Ecuador. **Cameron**, P. Entomologist, London, 36, 1903, (97, 120-121).

*Legnatis* n. gen., *L. fulipes* n. sp. Khasia Hills. **Cameron**, P. London, Trans. Ent. Soc., 1903, (225-226).

*Leptocryptus* n. gen., *L. longiventris* n. sp. Khasia Hills. **Cameron**, P. Manchester, Mem. Lit. Phil. Soc., 47, No. 14, 1903, (14-15).

*Leptothecus* n. gen., *L. rufomaculatus* n. sp. India. **Cameron**, P. Entomologist, London, 36, 1903, (240, 260).

*Limnerium* nn. spp. New Mexico. **Viereck**, H. L. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., 29, 1902-1903, (91-92).

*Linyceus* n. gen., *L. rufipes* n. sp. Ceylon. **Cameron**, P. Entomologist, London, 36, 1903, (234-235).

*Liotryphon* **Strobl** n. gen., *L. scotopterus* (Gr.) = *Tryphon scotopterus* Gr. **Strobl**, G. Graz, Mitt. Natw. Ver. Steierm., 1902, 1903, (78).

*Lissonota* nn. spp. New Mexico. **Viereck**, H. L. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., 29, 1902-1903, (83-84).

*Lortygia* n. gen., *L. rufa* n. sp. Khasia Hills. **Cameron**, P. Entomologist, London, 36, 1903, (235-236).

*Loegna* n. gen., *L. forticeps* n. sp. Khasia Hills. **Cameron**, P. London, Trans. Ent. Soc., 1903, (229-230).

*Macrojoppa* nn. spp. **Szépligeti**, V. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (481-482).

*Macrosterotrichus* n. subgen. (*Xylonomus*). **Kokujev**, N. Rev. russ. ent., Jaroslavl, 3, 1903, (285-288).

*Melanomicrus* n. nom., *M. ellioti* n. sp. **Morley**, C. Ichn. Brit., Plymouth, 1903, (287-288).

*Meniscus occidentalis* n. sp. New Mexico. **Viereck**, H. L. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., 29, 1902-1903, (84).

*Mesochorus areolatus* n. sp. New Mexico. **Viereck**, H. L. l.c. (92).

*Mesoleius leucomelas* n. sp. Südwestdeutschland. **Habermehl**, H. Zs. Hymenopter., Teschendorf, 3, 1903, (345-348).

nn. spp. Oesterreich. **Strobl**, G. Graz, Mitt. Natw. Ver. Steierm., 1902, 1903, (11-27).

*Mesoleptus alticola* n. sp. Oesterreich. **Strobl**, G. l.c. (5).

*Monoblastus (Dolichoblastus) flavopictus* n. sp. Oesterreich. **Strobl**, G. l.c. (52).

nn. spp. *nigriventris* (nom. nud.). **Ashmead** (ms.) in **Slosson**, A. T. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (319-321).

*Myermo* nn. spp. Assam. **Cameron**, P. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (316-318).

*Naenaria* n. gen., *N. grandiceps* n. sp. Assam. **Cameron**, P. l.c. (313-314).

*Notopygus* nn. spp. Oesterreich. **Strobl**, G. Graz, Mitt. Natw. Ver. Steierm., 1902, 1903, (44).

*Odontocryptus* n. gen., *O. bidentatus*, *O. sulcatus* nn. spp. Khasia Hills. **Cameron**, P. Manchester, Mem. Lit. Phil. Soc., 47, No. 14, 1903, (40-44).

*Orthocentrus macrocerus* n. sp. Oesterreich. **Strobl**, G. Graz, Mitt. Natw. Ver. Steierm., 1902, 1903, (88).

*Orthostigma delicata* (nom. nud.). **Ashmead** (ms.) in **Slosson**, A. T. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (319-321).

*Parabates ichmyperi* n. sp. Ecuador. **Cameron**, P. Entomologist, London, 36, 1903, (160).

*Perilissus punctatissimus* n. sp. Oesterreich. **Strobl**, G. Graz, Mitt. Natw. Ver. Steierm., **1902**, 1903, (63).

*Pezomachus* nn. spp. **Brues**, C. T. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1903, (119-128, with pl.).

*Phaenosomus alticola* (nom. nud.). **Ashmead** (ms.) in **Slosson**, A. T. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (319-321).

*Phaenogenes beulahensis* n. sp. New Mexico. **Viereck**, H. L. l.c. 1902-1903, (80).

*Phygadeuon nanopterus* n. sp. **Kieffer**, J. J. Zs. Hymenopter., Teschendorf, **3**, 1903, (110-111).

——— *polita* n. sp. New Mexico. **Viereck**, H. L. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1902-1903, (82).

——— *pulchripes* n. sp. Khasia Hills. **Cameron**, P. Manchester, Mem. Lit. Phil. Soc., **47**, No. 14, 1903, (46-47).

*Pimpla neomexicana* n. sp. New Mexico. **Viereck**, H. L. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1902-1903, (88).

*Platylabus ferrugineus* n. sp. Ceylon. **Cameron**, P. Entomologist, London, **36**, 1903, (237).

——— *laticornis* n. sp. **Pic**, M. Exchange Lyon, **17**, 1902, (58).

*Plesiognathus fragilis* n. sp. New Mexico. **Viereck**, H. L. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1902-1903, (82).

*Poecilojoppa variegata* n. sp. ♀. **Szépligeti**, V. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., **1**, 1903, (482).

*Polyblastus* nn. spp. Oesterreich. **Strobl**, G. Graz, Mitt. Natw. Ver. Steierm., **1902**, 1903, (55-61).

*Polycistius frontalis* (nom. nud.). **Ashmead** (ms.) in **Slosson**, A. T. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (319-321).

*Polyphectus* nn. spp. (nom. nud.). **Ashmead** (ms.) in **Slosson**, A. T. l.c. (319-321).

*Porizon canaliculatus* n. sp. New Mexico. **Viereck**, H. L. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1902-1903, (43-100).

*Porizon vierecki* n. sp. New Mexico. **Ockerell**, T. D. A. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (200-201).

*Prampha* n. gen., *P. mandibularis* n. sp. Khasia Hills. **Cameron**, P. London, Trans. Ent. Soc., **1903**, (231-232).

*Proboloides* n. nom., *P. glabratus*, *P. maculatus* nn. spp. **Morley**, C. Ichn. Brit., Plymouth, 1903, (160-162).

*Pilosarge longipes* (nom. nud.). **Ashmead** (ms.) in **Slosson**, A. T. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (319-321).

*Rhorus braunsi* n. sp. Südwestdeutschland. **Habermehl**, H. Zs. Hymenopter., Teschendorf, **3**, 1903, (345-348).

*Rhyssa skinneri* n. sp. New Mexico. **Viereck**, H. L. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1902-1903, (87).

*Rizarcha nigripes* (nom. nud.). **Ashmead** (ms.) in **Slosson**, A. T. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (319-321).

*Sarntheinia gansuana* n. sp. China, pr. Gan-su. **Kokujev**, N. R. Rev. Russ. Ent., Jaroslavl, **3**, 1903, (389).

*Scopasis monticola* n. sp. (nom. nud.). **Ashmead** (ms.) in **Slosson**, A. T. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (4-8).

*Scorpius albomarginatus* (nom. nud.). **Ashmead** (ms.) in **Slosson**, A. T. l.c. (319-321).

——— *flavopictus* n. sp. (nom. nud.). **Ashmead** in **Slosson**, A. T. l.c. (4-8).

*Setanta femoralis* n. sp. Khasia. **Cameron**, P. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (577-578).

*Silsila* n. gen., *S. fulvipes*, *S. bilineata* nn. spp. Khasia Hills. **Cameron**, P. Manchester, Mem. Lit. Phil. Soc., **47**, No. 14, 1903, (1-5).

*Spilocryptus* nn. spp. New Mexico. **Viereck**, H. L. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1902-1903, (81).

*Steriphocryptus* n. gen., *S. luteus* n. sp. India. **Cameron**, P. Entomologist, London, **36**, 1903, 233-234, 260-261).

*Sycaonia* n. gen., *S. rufo-facies* n. sp. Khasia Hills, **Cameron**, P. London, Trans. Ent. Soc., 1903, (224-225).

*Taphanes* n. gen., *T. rufiventris* n. sp. India. **Cameron**, P. Entomologist, London, 36, 1903, (239-240).

*Thalassa* sp. or *Rhyssa* sp., parasitic on *Sirex* sp., description, life history, relations to the Forest, points for observation. **Stebbing**, E. P. Departmental Notes on Insects that affect Forestry. No. 2. Calcutta, 1903, (156, pl. vii., fig. 2). 25 cm.

*Theronia fulvescens* var. *mellipennis* n. var. New Mexico. **Viereck**, H. L. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., 29, 1902-1903, (88).

*Tipulophion rufithorax* Cam. **Schuls**, W. A. Zs. Hymenopter., Teschendorf, 3, 1903, (249-253).

*Trematopygus laevithorax* n. sp. Oesterreich. **Strobl**, G. (Graz, Mitt. Natw. Ver. Steierm., 1902, 1903, (60).

*Trichomma bituberculatum* n. sp. **Schmiedeknecht**, O. Zs. Hymenopter, Teschendorf, 3, 1902, (357-368); 3, 1903, (1-8, 73-80, 171-176).

*Tryphon* nn. spp. Oesterreich. **Strobl**, G. Graz, Mitt. Natw. Ver. Steierm., 1902, 1903, (49).

*Tynites* n. gen., *T. rufipes* n. sp. Ecuador. **Cameron**, P. Entomologist, London, 36, 1903, (95-96).

*Ulesta* n. gen., *U. varicornis* n. sp. Khasia. **Cameron**, P. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (582-583).

*Ubaeiris* n. gen., *U. forticornis* n. sp. Ecuador. **Cameron**, P. Entomologist, London, 36, 1903, (96-97).

*Whymeria* n. gen., *W. carinifrons* n. sp. Ecuador. **Cameron**, P. l.c. (122-123).

*Xanthojoppa* nn. spp. Assam. **Cameron**, P. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (182-184).

— nn. spp. Khasia. **Cameron**, P. l.c. 12, 1903, (367-370).

*Xestojoppa* nn. spp. Khasia. **Cameron**, P. l.c. (568-569).

*Xoriden opacus* n. sp. E. Siberia. **Kokujev**, N. Rev. Russ. Ent., Jaroslavl', 3, 1903, (287).

*Xylonomus (Macrosterotrichus) jakovlevi* n. sp. E. Siberia, Russia. **Kokujev**, N. l.c. (288).

*Zaporus minutus* (nom. nud.) **Ashmead** (ms.) in **Slosson**, A. T. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (319-321).

*Zootrepes bicoloripes* (nom. nud.) **Ashmead** (ms.) in **Slosson**, A. T. l.c. (319-321).

## BRACONIDAE.

*Agathis parvus* n. sp. New Mexico. **Viereck**, H. L. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., 29, 1902-1903, (96).

*Anarcha micans* n. sp. New Mexico. **Viereck**, H. L. l.c. (93).

*Aphidius slossonae* (nom. nud.) n. sp. **Ashmead** (ms.) in **Slosson**, A. T. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (319-321).

*Baeognatha* n. gen., *B. turanica* n. sp. Transcaspi. **Kokujev**, N. St. Petersburg, Hor. Soc. Ent. Ross., 36, 1903, (243).

*Bracon* sp. predaceous upon *Scolytus minor* MS., note on its habits. **Stebbing**, E. P. Departmental Notes on Insects that affect Forestry. No. 2. Calcutta, 1903 (219). 25 cm.

*Chelonus australis* n. sp. New Mexico. **Viereck**, H. L. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., 29, 1902-1903, (95).

— *brevipennis* n. sp. **Melander**, A. L. and **Brues**, C. T. Wood's Holl, Mass., Mar. Biol. Lab. Bull., 5, 1903, (20).

*Clinocentrus*, synoptische Tabelle der Arten. **Szépligeti**, G. Allatt. Közlem., Budapest, 2, 1903, (107-108).

*Colastes*, synoptische Tabelle der Arten. **Szépligeti**, G. l.c. (107).

*Disophrys* nn. spp. Transcaspi. **Kokujev**, N. St. Petersburg, Hor. Soc. Ent. Ross., 36, 1903, (245-246).

*Macrodyctium monticola* (nom. nud.) n. sp. **Ashmead** (ms.) in **Slosson**, A. T. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (319-321).



*Meteorus* nn. spp. New Mexico. **Viereck**, H. L. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1902-1903, (94-95).

———— *areolatus* (nom. nud.) n. sp. **Ashmead** (ms.) in **Slosson**, A. T. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (319-321).

*Microdus* nn. spp. (nom. nud.). **Ashmead** in **Slosson**, A. T. l.c. (4-8).

———— *meridionalis* n. sp. New Mexico. **Viereck**, H. L. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1902-1903, (96).

*Microthogus niger* (nom. nud.) n. sp. **Ashmead** (ms.) in **Slosson**, A. T. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (319-321).

*Oncophanes*, synoptische Tabelle der Arten. **Szépligeti**, G. Állatt. Közlem., Budapest, **2**, 1903, (107).

*Orgilus kearfotti* n. sp. **Ashmead**, W. H. New York, N.Y., J. Ent. Soc., **11**, 1903, (144).

*Pelecystoma*, synoptische Tabelle der Arten. **Szépligeti**, G. Állatt. Közlem., Budapest, **2**, 1903, (108).

*Phaenocarpa slossonae* n. sp. (nom. nud.). **Ashmead** in **Slosson**, A. T. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (4-8).

*Phanerotoma* nn. spp. Mongolia, Transcaspija. **Kokujev**, N. Rev. Russ. Ent., Jaroslavl, **3**, 1903, (285-288).

*Protopanteles recurvariae* n. sp. **Ashmead**, W. H. New York, N.Y., J. Ent. Soc., **11**, 1903, (144).

*Rhogas*, synoptische Tabelle der Arten. **Szépligeti**, G. Állatt. Közlem., Budapest, **2**, 1903, (108-114).

———— *nigricoxis* n. sp. New Mexico. **Viereck**, H. L. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1902-1903, (97).

———— *sibiricus* n. sp. E. Siberia. **Kokujev**, N. Rev. Russ. Ent., Jaroslavl, **3**, 1903, (285-288).

*Rhyssalus*. Synoptische Tabelle der Arten. **Szépligeti**, G. Állatt. Közlem., Budapest, **2**, 1903, (107).

## EVANIIDAE.

## SPECIAL.

*Anaulacus* n. gen. **Semenov**, A. P. Rev. Russ. Ent., Jaroslavl, **3**, 1903, (173).

*Aulacinus* nn. spp. **Szépligeti**, V. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., **1**, 1903, (390-393).

*Aulax pterostigmatus* n. sp. **Szépligeti**, V. l.c. (394-395).

*Brachygaster oculata* n. sp. **Szépligeti**, V. l.c. (377).

*Evania* nn. spp. **Szépligeti**, V. l.c. (378-388).

*Evaniscus* n. gen., *E. tibialis* n. sp. **Szépligeti**, V. l.c. (378).

*Gasteruption* nn. spp. **Szépligeti**, V. l.c. (367-375).

———— *andrei* n. sp. Australia. **Kieffer**, J. J. Zs. Hymenopter., Tschendorf, **3**, 1903, (384).

———— *sowae* n. sp. Istria. **Schletterer**, A. Wien, Verh. ZoolBot. Ges., **51**, 1901, (219).

*Hyptia* nn. spp. **Szépligeti**, V. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., **1**, 1903, (375-377).

*Monomachus bicolor* n. sp. **Szépligeti**, V. l.c. (388-389).

*Pammegischia xiphidriae* n. sp. **Ashmead**, W. H. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **12**, 1901, (277-278).

*Pristaulacus* nn. spp. **Szépligeti**, V. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., **1**, 1903, (393-394).

*Pseudofoenus latigenalis* Schleit. ♂ Beschreibung, nn. spp. **Szépligeti**, V. l.c. (365-367).

*Tetraconus* n. gen. verwandt mit *Monomachus*. *T. mocsaryi* n. sp. **Szépligeti**, V. l.c. (389-390).

*Zeuzevania* nn. spp. Ostafrika. **Enderlein**, G. Berliner ent. Zs., **48**, 1903, (41-44).

## CYNIPIDAE.

## GENERAL.

**Bloesch**, C. Einige Notizen über Cynipiden und Chalcidier aus der Umge-

gend von Laufenburg. Schaffhausen, Mitt. Schweiz Entomol. Ges., 11, 1903, (46-55).

**Dalla Torre** von et **Kieffer**, J. J. Fasc. 10-Hymenoptera Fam. Cynipidae. In: Wytzman, P., Genera Insectorum. Bruxelles, 1902, (53-84). fr. 11, 20.

## SPECIAL.

*Aulacidea solidaginis* n. sp. **Girault**, A. A. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (323-324, with fig. in text).

*Callirhytis semicarpifoliae* Cam. attacking "Kharshu" oak in the Punjab. Description, life-history, relations to forest-protection and remedies, points for observation. **Stebbing**, E. P. Departmental notes on Insects that affect Forestry. No. 2 Calcutta, 1903, (159, pl. VII, fig. 3, a, b, c.). 25 cm.

*Dieucoila* n. gen., type *D. subopaca*. Brazil. **Ashmead**, W. H. Washington, D.C., Proc. Ent. Soc., 5, 1903, (221-223).

*Kiefferiella* n. nom. = *Kiefferia* Ashm. preoc. in Diptera, type *K. rugosa*. California. **Ashmead**, W. H. l.c. (221-223).

*Liebelia* n. gen., *L. cavarae* n. sp. **Kieffer**, J. J. Zs. Hymenopter., Teschendorf, 3, 1903, (110-111).

*Odonteucoila* n. gen., type *O. chapadae*. Brazil. **Ashmead**, W. H. Washington, D.C., Proc. Ent. Soc., 5, 1903, (221-223).

*Periclistidea* n. gen. (nom. nud.), *P. monticola* n. sp. **Ashmead** in **Slonson**, A. T. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (4-8).

*Promiomeria* n. gen., type *P. filicornis*. Brazil. **Ashmead**, W. H. Washington, D.C., Proc. Ent. Soc., 5, 1903, (221-223).

*Pseudeucoila* n. gen., type *Fucoila* (*Cothonaspis*) *trichopsila* Hartig. Brazil. **Ashmead**, W. H. l.c. (221-223).

*Synergus* spp., Lebensweise. **Kieffer**, J. J. Allg. Zs. Ent., Neudamm, 8, 1903, (122-123).

———— *incrassatus*, *S. heyancus* und *S. rugulosus*. **Nielsen**, J. C. l.c. (35-37).

*Trissodontaspis* n. gen., type *T. rufipes*. Brazil. **Ashmead**, W. H. Washington, D.C., Proc. Ent. Soc., 5, 1903, (221-223).

*Tropideucoila* n. gen., type *T. rufipes*. Brazil. **Ashmead**, W. H. l.c. (221-223).

*Zaeucoila* n. gen., type *Z. unicarinata*. Brazil. **Ashmead**, W. H. l.c. (221-223).

*Zamischus* n. gen., type *Z. brasiliensis*. Brazil. **Ashmead**, W. H. l.c. (221-223).

## SESSILIVENTRES.

## GENERAL.

**Konow**, Fr. W. Neue Chalastogastra Zs. Hymenopter., Teschendorf, 3, 1903, (105-109, 166-171).

## SIRICIDAE.

## GENERAL.

**Olivier**, E. Note entomologique. Echange, Lyon, 17, 1902, (46).

## SPECIAL.

*Chalinus haugi* n. sp. Congo. **Du Buysson**, R. Bul. Muséum, Paris, 1902, (599-601).

*Sirez* sp. description of larva, pupa and imago, life-history, attacking spruce in N.W. Himalayas, notes on protection, and points for observation. **Stebbing**, E. P. Departmental notes on Insects that affect Forestry. No. 2. Calcutta, 1903, (151, pl. vii, fig. 1, a-f). 25 cm.

———— *juvenis*, Parasiten. **Schirmer**, O. Soc. Entomol., Zürich, 18, 1903, (121-122).

*Xiphydria buyssoni* n. sp. Japan. **Konow**, F. W. Zs. Hymenopter., Teschendorf, 3, 1903, (105).

## TENTHREDINIDAE.

## GENERAL.

**Bisschop van Tuinen**, K. . . . Sägwerkzeuge der Cimbicini. (Holländisch) 's Gravenhage, Tijdschr. Ent., 46, [1903], (58-64, mit 3 Taf.).

**Florentin, R.** Note sur une larve de Tenthrede du noisetier et du bouleau. Feuille jeunes natural., Paris, (ser. 4), **33**, 1903, (105-107, av. fig.).

**Giard, A.** Larve des feuilles du noisetier. *l.c.* (52).

——— Larve de Tenthrede du noisetier et du bouleau [réponse à M. R. Florentin]. *l.c.* (133).

**Konow, F. W.** Ueber neue oder wenig bekannte Tenthredinidae des russischen Reiches und Centralasiens. St. Petersburg, Ann. Mus. zool. Ac. Sc., **8**, 1903, (115-132).

——— Ueber die Holmgren'schen Nematiden sowie über Kiaersche und andere Tenthrediniden. Zs. Hymenopter., Teschendorf, **3**, 1903, (154-162).

——— Einiges über die Subtribus Perreyides. *l.c.* (162-166).

——— Hyménoptères Tenthredinides récoltés au Japon par M. J. Harmand. Bul. Muséum, Paris, **1903**, (128).

**Marchand, E.** Inventaire des Tenthredinides [sic] ou mouches à scie (Hymenoptera-Chalastogastra) recueillies aux environs de Nantes, suivi de notices sur quelques espèces particulièrement nuisibles. Nantes, Bul. soc. sci. nat., (ser. 2, 2), **12**, 1902, (233-266).

**Morice, F. D.** Help-notes towards the determination of British Tenthredinidae. Ent. Mag., London, **39**, 1903, (9-14, 47-54, 114-119, 187-193, 242-245, 275-277).

——— Tenthredinidae collected by Col. Yerbury in Herefordshire, 1902. *l.c.* (113).

#### SPECIAL.

**Acorduleceros** nn. spp. **Konow, F. W.** Peru. Zs. Hymenopter., Teschendorf, **3**, 1903, (166-169).

**Allantus tepidus** n. sp. Buchara. **Konow, F. W.** St. Petersburg, Ann. Mus. zool. Ac. Sc., **8**, 1903, (126).

**Athalia scapulata** n. sp. China. **Konow, F. W.** *l.c.* (117).

**Camptoprium languidum** n. sp. **Konow, F. W.** Zs. Hymenopter., Teschendorf, **3**, 1903, (162-166).

**Corymbas** n. gen., *C. koreana* n. sp. **Konow, F. W.** St. Petersburg, Ann. Mus. zool. Ac. Sc., **8**, 1903, (120).

**Dolerus** nn. spp. Buchara, Turkestan. **Konow, F. W.** *l.c.* (118-119).

**Encarsioneura tenuista** n. sp. W. China. **Konow, F. W.** *l.c.* (123).

**Eriglenum humeratum** n. sp. Peru. **Konow, F. W.** Zs. Hymenopter., Teschendorf, **3**, 1903, (106).

**Hemidianeura coeliaca** n. sp. Brazil. **Konow, F. W.** *l.c.* (106).

**Labidarge torquata** n. sp. Brazil. **Konow, F. W.** *l.c.* (106).

**Loboceros frater** n. sp. Peru. **Konow, F. W.** *l.c.* (169).

**Lophyrus pini**, Eiablage. **Rey, E.** Insektenbörse, Leipzig, **20**, 1903, (268).

**Lyda pratensis**, Schädlichkeit. **Lüke.** Zs. Forstw., Berlin, **35**, 1903, (411-417).

——— *rufipes*, general development. **Fernald, H. T.** Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (298-302).

**Pamphilus** nn. spp. **Konow, F. W.** Zs. Hymenopter., Teschendorf, **3**, 1903, (37-38).

**Periclista lenta** n. sp. **Konow, F. W.** *l.c.* (145-153).

**Perreyia nigra** n. sp. **Konow, F. W.** *l.c.* (162-166).

**Petis** n. gen., *P. privus* n. sp. **Konow, F. W.** *l.c.* (315-316).

**Pteronus spiraeae** Zdd. (Holländisch) **Roosum, A. J. van.** 's Gravenhage, Tijdschr. Ent., **45**, 1903, (246-257, mit 1 Taf.).

**Rhagonyx** n. gen., *R. lituratus* n. sp. Ecuador. **Konow, F. W.** Zs. Hymenopter., Teschendorf, **3**, 1903, (108-109).

**Schioceros albiceratus** n. sp. Peru. **Konow, F. W.** *l.c.* (108).

**Sciopteryx lactipennis** n. sp. Transcaspiä and Transcaspiä. **Konow, F. W.** St. Petersburg, Ann. Mus. zool. Ac. Sc., **8**, 1903, (125).

**Selandria andeana** n. sp. Ecuador. **Cameron, P.** Entomologist, London, **36**, 1903, (161).

**Stromboceros** nn. spp. **Konow, F. W.** Zs. Hymenopter., Teschendorf, **35**, 1903, (145-153).

*Taxonus procinctus* n. sp. W. China.  
Konow, F. W. St. Petersburg, Ann.  
Mus. zool. Ac. Sc., 8, 1903, (117).

*Tenthredo* nn. spp. Caucasus, Mongolia, W. China. Konow, F. W. l.c. (128-130).

*Tenthredopsis* nn. spp. Crimea, Caucasus, Altai, Siberia. Konow, F. W. l.c. (124).

*Trichiosoma* nn. spp. Siberia, Mongolia. Konow, F. W. l.c. (115-116).

*Zarea* nn. spp. Konow, F. W. Zs. Hymenopter., Teschendorf, 3, 1903, (145-153).

## LIST OF NEW GENERA AND SPECIES.

## ACANTHOJOPPA [Ichneumonidae].

- \_\_\_\_\_ *apicilineata*. Cameron. 60.
- \_\_\_\_\_ *curtiopina*. Cameron. 60.
- \_\_\_\_\_ *indica*. Cameron. 59.
- \_\_\_\_\_ *lutea*. Cameron. 59.
- \_\_\_\_\_ *nigrolineata*. Cameron. 60.
- \_\_\_\_\_ *nigromaculata*. Cameron. 60.
- \_\_\_\_\_ *tinctipennis*. Cameron. 60.
- \_\_\_\_\_ *varicornis*. Cameron. 60.
- \_\_\_\_\_ *xanthopsis*. Cameron. 60.

## ACANTHOLEPIS [Formicidae].

- \_\_\_\_\_ *australis*. Forel. 134.
- \_\_\_\_\_ *bosii*. Forel. 134.
- \_\_\_\_\_ *clivopina*. Forel. 134.
- \_\_\_\_\_ *froggatti*. Forel. 134.

**Achais** n. gen. [Ichneumonidae].

- \_\_\_\_\_ Cameron. 60.
- \_\_\_\_\_ *flavo-balteatus*. Cameron. 60.

## AOORDULEOEROS [Tenthredinidae].

- \_\_\_\_\_ *arcticornis*. Konow. 211.
- \_\_\_\_\_ *globulicornis*. Konow. 211.
- \_\_\_\_\_ *inquinatus*. Konow. 211.
- \_\_\_\_\_ *insignis*. Konow. 211.
- \_\_\_\_\_ *nigricornis*. Konow. 211.
- \_\_\_\_\_ *pupulus*. Konow. 211.

## AENICTUS [Formicidae].

- \_\_\_\_\_ *grandis*. Bingham. 28.
- \_\_\_\_\_ *greeni*. Bingham. 28.
- \_\_\_\_\_ *steindachneri*. Mayr. 239.

## AGAPOSTEMON [Anthophila].

- \_\_\_\_\_ *peruvianus*. Cameron. 67.

## AGATHIS [Braconidae].

- \_\_\_\_\_ *partus*. Viereck. 347.

## AGENIA [Sphegidae].

- \_\_\_\_\_ *euphorbiae*. Viereck. 349.

**Aglaocryptus** n. gen. [Ichneumonidae].

- \_\_\_\_\_ Cameron. 61.
- \_\_\_\_\_ *curvamaculatus*. Cameron. 61.
- \_\_\_\_\_ *striatifrons*. Cameron. 61.

## AGLAOJOPPA [Ichneumonidae].

- \_\_\_\_\_ *caeruleodorsata*. Cameron. 59.
- \_\_\_\_\_ *femorata*. Cameron. 59.
- \_\_\_\_\_ *flavolineata*. Cameron. 59.
- \_\_\_\_\_ *latemaculata*. Cameron. 60.
- \_\_\_\_\_ *5-maculata*. Cameron. 60.
- \_\_\_\_\_ *quadrinaculata*. Cameron. 60.
- \_\_\_\_\_ *rufofemorata*. Cameron. 60.
- \_\_\_\_\_ *violaceipennis*. Cameron. 60.

## ALASTOR [Vespidae].

- \_\_\_\_\_ *chrysocephalus*. Schrottky. 317.

## ALCIDAMEA [Anthophila].

- \_\_\_\_\_ *utulalis*. Cockerell. 82.

## ALFARIA [Formicidae].

- \_\_\_\_\_ *emeryi*. Forel. 132.

## ALGATHIA [Ichneumonidae].

- \_\_\_\_\_ *albitarsis*. Cameron. 59.
- \_\_\_\_\_ *khasiana*. Cameron. 59.
- \_\_\_\_\_ *parvamaculata*. Cameron. 60.

## ALLANTUS [Tenthredinidae].

- \_\_\_\_\_ *tepidus*. Konow. 217.

## AMBLYJOPPA [Ichneumonidae].

- \_\_\_\_\_ *flavo-ornata*. Cameron. 60.
- \_\_\_\_\_ *rufocincta*. Cameron. 60.
- \_\_\_\_\_ *tibialis*. Cameron. 60.
- \_\_\_\_\_ *raripes*. Cameron. 60.
- \_\_\_\_\_ *violaceipennis*. Cameron. 60.

## AMBLYTELES [Ichneumonidae].

- \_\_\_\_\_ *laminatorius* var. *niponensis* n var. Pic. 275.
- \_\_\_\_\_ *punctus* var. *lateobcurus* n var. Pic. 275.
- \_\_\_\_\_ *tangeranus*. Pic. 275.

## AMISEGA [Chrysididae].

- \_\_\_\_\_ *aeniceps*. Ducke. 107.

## AMMOPHILA [Sphegidae].

- \_\_\_\_\_ *adelpha*. Kohl. 205.
- \_\_\_\_\_ *aemulans*. Kohl. 205.
- \_\_\_\_\_ *alyra*. Kohl. 205.
- \_\_\_\_\_ *assimilis*. Kohl. 205.
- \_\_\_\_\_ *basalis*. Nurse. 260.
- \_\_\_\_\_ *bolanica*. Nurse. 262.
- \_\_\_\_\_ *caelebs*. Kohl. 205.
- \_\_\_\_\_ *divina*. Kohl. 205.
- \_\_\_\_\_ *dolichostroma*. Kohl. 205.
- \_\_\_\_\_ *dnbia*. Kohl. 205.

**AMMOPHILA** [Sphgidae].

- *durga*. Nurse. 260.
- *electa*. Kohl. 205.
- *erminea*. Kohl. 205.
- *errabunda*. Kohl. 205.
- *flavida*. Kohl. 205.
- *funerea*. Nurse. 262.
- *gigantea*. Kohl. 205.
- *haimatosoma*. Kohl. 205.
- *induta*. Kohl. 205.
- *judaeorum*. Kohl. 205.
- *litigiosa*. Kohl. 205.
- *luffii*. Saunders. 307.
- *minaz*. Kohl. 205.
- *philomela*. Nurse. 260.
- *pungens*. Kohl. 205.
- *sickmanni*. Kohl. 205.
- *smithii*. Nurse. 260.
- *unguicularis*. Kohl. 205.

**AMMOPLANUS** [Sphegidae].

- *mandibularis*. Cameron. 64.

**AMPULEX** [Sphegidae].

- *assamensis*. Cameron. 58.
- *carinifrons*. Cameron. 58.
- *himalayensis*. Cameron. 59.
- *interstitialis*. Cameron. 59.
- *khasiana*. Cameron. 58.
- *montana*. Cameron. 59.

**ANARCHA** [Braconidae].

- *micans*. Viereck. 347.

**Ananilacus** n. gen. [Evaniidae]. Semenov. 323.**ANCISTROCERUS** [Vespidae].

- *halophila*. Viereck. 349.

**Ancyra** n. gen. [Ichneumonidae]. Cameron. 58.

- *flavomaculata*. Cameron. 58.

**ANDRENA** [Anthophila].

- *abeillei*. Pérez. 270.
- *alliaria*. Pérez. 270.
- *arcuata*. Pérez. 270.
- *atala*. Viereck. 347.
- *batava*. Pérez. 269.
- *beulahensis*. Viereck. 347.
- *bothriorhina*. Pérez. 269.
- *carantonica*. Pérez. 269.
- *cellularis*. Pérez. 269.
- *chrysopus*. Pérez. 270.
- *coarctata*. Pérez. 269.
- *curtula*. Pérez. 270.
- *delta*. Viereck. 347.
- *depressiuscula*. Pérez. 270.
- *divergens*. Pérez. 270.
- *dizona*. Pérez. 270.
- *echinulata*. Pérez. 270.
- *emarginata*. Pérez. 270.

**ANDRENA** [Anthophila].

- *fabrella*. Pérez. 270.
- *fervida*. Pérez. 269.
- *gaseheti*. Pérez. 270.
- *gilvifrons*. Pérez. 270.
- *grandilabris*. Pérez. 270.
- *granulosa*. Pérez. 269.
- *griseo-fusca*. Pérez. 270.
- *heterodoxa*. Pérez. 270.
- *languida*. Pérez. 269.
- *lavandulae*. Pérez. 269.
- *lenis*. Pérez. 270.
- *leptodactyla*. Pérez. 270.
- *mesolia*. Pérez. 270.
- *mimetica*. Cockerell. 84.
- *molesta*. Pérez. 270.
- *nigrosterina*. Pérez. 269.
- *nigriventris*. Pérez. 269.
- *nitidula*. Pérez. 270.
- *nuptialis*. Pérez. 269.
- *obscurella*. Pérez. 270.
- *pacta*. Viereck. 347.
- *panurgina*. Pérez. 270.
- *patella*. Nurse. 260.
- *pauperata*. Pérez. 269.
- *pellularis*. Pérez. 270.
- *petroselini*. Pérez. 270.
- *placitae*. Cockerell. 80.
- *problematica*. Pérez. 270.
- *pusilla*. Pérez. 270.
- *pyrrhula*. Pérez. 270.
- *ramlehiana*. Pérez. 270.
- *rhypara*. Pérez. 270.
- *rostellata*. Pérez. 270.
- *senicula*. Pérez. 270.
- *setosa*. Pérez. 270.
- *similaevis*. Pérez. 270.
- *simulans*. Pérez. 270.
- *squalida*. Pérez. 270.
- *strigifrons*. Pérez. 270.
- *truncata*. Pérez. 270.
- *truncata*. Viereck. 347.
- *viridi-aenea*. Pérez. 270.

**ANOCHETUS** [Formicidae].

- *punctaticeps*. Mayr. 239.
- *talpa*. Forel. 132.

**ANOPLIUS** [Sphegidae].

- *atargates*. Cameron. 59.
- *icades*. Cameron. 59.
- *omoerus*. Cameron. 59.
- *padrinus*. Viereck. 349.
- *styrus*. Cameron. 59.

**Anthemois** n. gen. [Anthophila]. Robertson. 287.**ANTHIDIUM** [Anthophila].

- *conciliatum*. Nurse. 260.
- *minutissimum*. Bingham. 29.
- *modestum*. Bingham. 27.
- *pondreum*. Titus. 343.

- ANTHOPHORA** [Anthophila].  
 — *andalusica*. Pérez. 269.  
 — *dalmatica*. Pérez. 269.  
 — *euops*. Cockerell. 84.  
 — *gohrmanae*. Cockerell. 84.  
 — *guachalae*. Cameron. 67.  
 — *nubiterrae*. Viereck. 347.  
 — *semicula*. Pérez. 269.  
 — *stefanii*. Pérez. 269.
- APERILEPTUS** [Ichneumonidae].  
 — *clypeatus* (nom. nud.). Ashmead. 328.  
 — *pleuralis* (nom. nud.). Ashmead. 329.
- APHIDIUS** [Braconidae].  
 — *slosonae* (nom. nud.). Ashmead. 329.
- ASTATA** [Sphegidae].  
 — *lubricata*. Nurse. 260.  
 — *quettae*. Nurse. 262.
- ATHALIA** [Tenthredinidae].  
 — *scapulata*. Konow. 217.
- ATILLUM** n. gen. [Sphegidae]. André. 4.
- ATROMETUS** [Ichneumonidae].  
 — *flavifrons* (nom. nud.). Ashmead. 328.
- AULACIDEA** [Cynipidae].  
 — *solidaginis*. Girault. 166.
- AULACINUS** [Evanidae].  
 — *biroi*. Szepligeti. 339.  
 — *braziliensis*. Szepligeti. 339.  
 — *notatus*. Szepligeti. 339.  
 — *planiceps*. Szepligeti. 339.
- AULAX** [Evanidae].  
 — *plerostigmatus*. Szepligeti. 339.
- AUXOPAEDENTES** n. gen. [Proctotrupidae].  
 — Brues. 45.  
 — *sodalis*. Brues. 45.
- BAEOGNATHA** n. gen. [Braconidae].  
 — Kokujev. 206.  
 — *turanica*. Kokujev. 206.
- BASSUS** [Ichneumonidae].  
 — *nigrolineatus*. Strobl. 336.  
 — *tauriscorum*. Strobl. 336.
- BATHYGETES** [Ichneumonidae].  
 — *nidia*. Viereck. 347.
- BEMBEX** [Sphegidae].  
 — *irritata*. Nurse. 260.
- BENECLES** n. gen. [Ichneumonidae].  
 — Cameron. 65.  
 — *rufomaculatus*. Cameron. 65.
- BENYLUS** n. gen. [Ichneumonidae].  
 — Cameron. 58.  
 — *rufus*. Cameron. 58.
- BOMBAS** n. gen. [Anthophila]. Robert-son. 287.  
 — *auricomus* n. nom. Robert-son. 287.
- BOMBOMELEOTA** [Anthophila].  
 — *azygos*. Viereck. 348.  
 — *separata* var. *maculata* n. var. Viereck. 348.  
 — *zygos*. Viereck. 348.
- BOMBUS** [Anthophila].  
 — *bicolor*. Friese. 156.  
 — *butteli*. Friese. 156.  
 — *coccineus*. Friese. 156.  
 — *handlirschi*. Friese. 156.  
 — *schneideri*. Friese. 156.  
 — *titusi*. Ashmead. 9.  
 — *vogti*. Friese. 156.  
 — *weisi*. Friese. 156.
- BOTHYNOSTETHUS** [Sphegidae].  
 — *aberrans*. Ducke. 110.  
 — *dubius*. Ducke. 110.  
 — *kohlii*. Ducke. 110.
- BRACHYOISTIS** [Sphegidae].  
 — *cramastogaster*. Melander. 240.
- BRACHYGASTER** [Evanidae].  
 — *oculata*. Szepligeti. 339.
- BUSTRA** n. gen. [Ichneumonidae].  
 — Cameron. 58.  
 — *rufiventris*. Cameron. 58.
- CAENOHALICTUS** n. gen. [Anthophila].  
 — Cameron. 67.  
 — *trichiothalmus*. Cameron. 67.
- CALLAJOPPA** n. gen. [Ichneumonidae].  
 — Cameron. 65.  
 — *bilineata*. Cameron. 65.
- CALOTELEIA** [Proctotrupidae].  
 — *partipennis*. Melander and Brues. 241.
- CAMPONOTUS** [Formicidae].  
 — *apostolus*. Forel. 129a.  
 — *emeryodicatus* n. nom. Forel. 130.  
 — *maculatus* var. *humilior* n. var. Forel. 134.  
 — — *pictiventris* n. subsp. Mayr. 239.  
 — *nigriceps* var. *clavator* n. var. Forel. 134.  
 — *reginae*. Forel. 141.  
 — *suffusus* var. *bendigensis* n. var. Forel. 134.

- CAMPOMERIS** [Sphegidae].  
 ——— *argenteopilosa*. Cameron. 67.
- CAMPTOPRIUM** [Tenthredinidae].  
 ——— *languidum*. Konow. 214.
- CARDIOCONDYLA** [Formicidae].  
 § ——— *kosheunikovi*. Kuzakij. 302.  
 ——— *parvinoda*. Forel. 133.
- Caspiptina** n. gen. [Ichneumonidae].  
 ——— Cameron. 58.  
 ——— *ferruginea*. Cameron. 58.  
 ——— *violaceipennis*. Cameron. 60.
- CATAULAUS** [Formicidae].  
 || ——— *baumii*. Forel. 141.  
 ——— *brevisetosus*. Forel. 141.  
 ——— *brookei*. Forel. 129a.  
 ——— *rugosus*: *micans* n. subsp. Mayr. 239.
- CATOGLYPTUS** [Ichneumonidae].  
 ——— *splendens*. Strobl. 336.
- CENTROMYRMEX** [Formicidae].  
 ——— *greeni*. Forel. 132.
- Centroamia** n. gen. [Anthophila].  
 ——— Robertson. 287.
- CERAMIUS** [Vespididae].  
 ——— *beyeri*. Brauns. 38.  
 ——— *capicola*. Brauns. 38.  
 ——— *fumipennis*. Brauns. 38.  
 ——— *karrooensis*. Brauns. 38.  
 ——— *schulthessi*. Brauns. 38.
- CERAPACHYS** [Formicidae].  
 ——— *cribinodis* var. *natalensis* n. var. Forel. 132.  
 ——— *turneri*. Forel. 134.
- Ceratocryptus** n. gen. [Ichneumonidae].  
 ——— Cameron. 61.  
 ——— *bituberculatus*. Cameron. 61.  
 ——— *tibialis*. Cameron. 61.
- Cerattus** n. gen. [Anthophila].  
 ——— Robertson. 287.
- CERATINA** [Anthophila].  
 ——— *crevi*. Cockerell. 83.  
 ——— *submaritima*: *ehrhorni* n. subsp. Cockerell. 84.  
 ——— *titusi*. Cockerell. 83.  
 ——— *townsendi*. Cockerell. 84.
- CERCERIS** [Sphegidae].  
 ——— *annandali*. Bingham. 29.  
 ——— *cockerelli*. Viereck. 349.  
 ——— *dolosa*. Nurse. 260.  
 ——— *kashmirensis*. Nurse. 260.
- § Also described in N. 2, i, No. 11279, 11280.  
 || Also described in N. 2, i, No. 7834.
- CEROPALES** [Sphegidae].  
 ——— *ligea*. Bingham. 29.  
 ——— *marcia*. Nurse. 260.
- CHALINUS** [Siricidae].  
 ——— *haugi*. Du Buysson. 104.
- CHARITOJOPPA** [Ichneumonidae].  
 ——— *varicolor*. Cameron. 60.
- CHEILONEURUS** [Chalcididae].  
 ——— *swezeyi*. Ashmead. 12.
- CHELONUS** [Braconidae].  
 ——— *australis*. Viereck. 347.  
 ——— *brevipennis*. Melander and Brues. 241.
- CHELOSTOMA** [Anthophila].  
 ——— *australis*. Cockerell. 82.
- CHIAGLAS** [Ichneumonidae].  
 ——— *longicornis*. Cameron. 60.  
 ——— *longiventris*. Cameron. 60.  
 ——— *tinctipennis*. Cameron. 60.  
 ——— *varipes*. Cameron. 59.  
 ——— *violaceipennis*. Cameron. 60.
- CHIROTICA** [Ichneumonidae].  
 ——— *inermis*. Viereck. 347.
- Chlorocryptus** n. gen. [Ichneumonidae].  
 ——— Cameron. 61.  
 ——— *coeruleus*. Cameron. 61.  
 ——— *metallicus*. Cameron. 61.
- CHRYSIDIS** [Chrysididae].  
 ——— *affinissima*. Ducke. 107.  
 ——— *arrestans*. Nurse. 261.  
 ——— *autocrata*. Nurse. 261.  
 ——— *bahadur*. Nurse. 261.  
 ——— *balucha*. Nurse. 261.  
 ——— *bhavanas*. Bingham. 28.  
 ——— *danae*. Bingham. 28.  
 ——— *durga*. Bingham. 28.  
 ——— *elizabethae*. Bingham. 28.  
 ——— *fax*. Semenov. 325.  
 ——— *furcifera*. Bingham. 28.  
 ——— *glabriceps*. Ducke. 107.  
 ——— *greeni*. Bingham. 28.  
 ——— *guedesi*. Ducke. 107.  
 ——— *gujaratica*. Nurse. 261.  
 ——— *hedychroides*. Bingham. 28.  
 ——— *hoggei*. Nurse. 261.  
 ——— *lanka*. Bingham. 28.  
 ——— *leucocheiloides*. Ducke. 107.  
 ——— *lucinda*. Nurse. 261.  
 ——— *mandibularis*. Du Buysson. 106.  
 ——— *morosa*. Du Buysson. 106.  
 ——— *nila*. Bingham. 28.  
 ——— *nugatrix*. Bingham. 28.  
 ——— *nursei*. Bingham. 28.  
 ——— *obidensis*. Ducke. 107.

**CHRYSIDIS** [Chrysididae].

- \_\_\_\_\_ *paraensis*. Ducke. 107.  
 \_\_\_\_\_ *paria*. Bingham. 28.  
 \_\_\_\_\_ *petri*. Semenov. 325.  
 \_\_\_\_\_ *quetzalaensis*. Nurse. 261.  
 \_\_\_\_\_ *salamensis*. Du Buysson.  
 106.  
 \_\_\_\_\_ *sandaracata*. Bingham.  
 28.  
 \_\_\_\_\_ *thalia*. Nurse. 261.  
 \_\_\_\_\_ *variana*. Du Buysson. 106.

**CHYPHOTES** [Sphegidae].

- \_\_\_\_\_ *heathii*. Melander. 240.

**CIRROSPILUS** [Chalcididae].

- \_\_\_\_\_ *immaculatus* (nom. nud.)  
 Ashmead. 328.

**CNEMOCRYPTUS** n. gen. [Ichneumonidae].

- \_\_\_\_\_ Cameron. 61.  
 \_\_\_\_\_ *validicornis*. Cameron. 61.

**CNEMOPIPLA** n. gen. [Ichneumonidae].

- \_\_\_\_\_ Cameron. 63.  
 \_\_\_\_\_ *pilosa*. Cameron. 63.

**COELIOXYX** [Anthophila].

- \_\_\_\_\_ *curtispina*. Cameron. 62.  
 \_\_\_\_\_ *rufitarsus*: *rhois* n. subsp.  
 Cockerell. 84.  
 \_\_\_\_\_ *stolidus*. Nurse. 260.

**COLLETES** [Anthophila].

- \_\_\_\_\_ *abeillei*. Pérez. 270.  
 \_\_\_\_\_ *acutus*. Pérez. 270.  
 \_\_\_\_\_ *breticornis*. Pérez. 270.  
 \_\_\_\_\_ *bretispinosus*. Viereck. 347.  
 \_\_\_\_\_ *cariniger*. Pérez. 270.  
 \_\_\_\_\_ *chobauti*. Pérez. 270.  
 \_\_\_\_\_ *constrictus*. Pérez. 270.  
 \_\_\_\_\_ *crucis*. Cockerell. 79.  
 \_\_\_\_\_ *delodontus*. Viereck. 347.  
 \_\_\_\_\_ *emarginatus*. Pérez. 270.  
 \_\_\_\_\_ *foveolaris*. Pérez. 270.  
 \_\_\_\_\_ *frigidus*. Pérez. 270.  
 \_\_\_\_\_ *mongolicus*. Pérez. 270.  
 \_\_\_\_\_ *oromontis*. Viereck. 347.  
 \_\_\_\_\_ *paniscus*. Viereck. 347.  
 \_\_\_\_\_ *pulchellus*. Pérez. 270.  
 \_\_\_\_\_ *sericeus*. Pérez. 270.  
 \_\_\_\_\_ *simus*. Pérez. 270.  
 \_\_\_\_\_ *skinneri*. Viereck. 347.  
 \_\_\_\_\_ *spurcus*. Viereck. 347.  
 \_\_\_\_\_ *ventralis*. Pérez. 270.  
 \_\_\_\_\_ *zonatus*. Viereck. 347.

**COLOBOPSIS** [Formicidae].

- \_\_\_\_\_ *testacea*. Bingham. 28.

**CORYMBAS** n. gen. [Tenthredinidae].

- \_\_\_\_\_ Konow. 217.  
 \_\_\_\_\_ *koreana*. Konow. 217.

**CORYNEPHANES** [Ichneumonidae].

- \_\_\_\_\_ *tarsalis* (nom. nud.). Ash-  
 mead ms. 329.

**CRABRO** [Sphegidae].

- \_\_\_\_\_ *balucha*. Nurse. 262.  
 \_\_\_\_\_ *elongatus*. Nurse. 262.  
 \_\_\_\_\_ *gulmargensis*. Nurse. 260.  
 \_\_\_\_\_ *prosopiformis*. Nurse. 262.

**CRATICHNEUMON** [Ichneumonidae].

- \_\_\_\_\_ *adonis*. Viereck. 347.  
 \_\_\_\_\_ *artemis*. Viereck. 351.  
 \_\_\_\_\_ *cockerelli*. Viereck. 347.  
 \_\_\_\_\_ *gracilicornis*. Viereck. 347.  
 \_\_\_\_\_ *patroclus*. Viereck. 347.  
 \_\_\_\_\_ *pedalis* var. *pallidipennis* n.  
 var. Viereck. 351.  
 \_\_\_\_\_ var. *varitarsis* n.  
 var. Viereck. 351.  
 \_\_\_\_\_ *pluto*. Viereck. 347.  
 \_\_\_\_\_ *restrictus* var. *sub-restrictus*  
 n. var. Viereck. 347.  
 \_\_\_\_\_ *skinneri*. Viereck. 347.

**CREMASTOGASTER** [Formicidae].

- \_\_\_\_\_ *aberrans* var. *inglebyi* n. var.  
 Forel. 133.  
 \_\_\_\_\_ *biroi* var. *aikhenii* n. var.  
 Forel. 133.  
 \_\_\_\_\_ var. *smythiesii* n.  
 var. Forel. 133.  
 \_\_\_\_\_ *buddhae*. Forel. 133.  
 \_\_\_\_\_ *coraz*. Forel. 133.  
 \_\_\_\_\_ *cornigera*. Forel. 134.  
 \_\_\_\_\_ *daisyi*. Forel. 123.1.  
 \_\_\_\_\_ *dalyi*. Forel. 133.  
 \_\_\_\_\_ *dispar*. Forel. 134.  
 \_\_\_\_\_ *ebenina*. Forel. 133.  
 \_\_\_\_\_ *fritolus*. Forel. 134.  
 \_\_\_\_\_ *himalayanus*. Forel. 133.  
 \_\_\_\_\_ *hodgsoni*. Forel. 133.  
 \_\_\_\_\_ *laeticeps* var. *chasei* n. var.  
 Forel. 134.  
 \_\_\_\_\_ var. *clarior* n.  
 var. Forel. 134.  
 \_\_\_\_\_ *millardi*. Forel. 133.  
 \_\_\_\_\_ *nicevillei*. Forel. 133.  
 \_\_\_\_\_ *nilgirica*. Forel. 133.  
 \_\_\_\_\_ *notabilis*. Forel. 133.  
 \_\_\_\_\_ *opaca* var. *dentinodis* n. var.  
 Wheeler. 371.  
 \_\_\_\_\_ *opaciceps*. Mayr. 239.  
 \_\_\_\_\_ *perelegans*. Forel. 133.  
 \_\_\_\_\_ *quadriformis* var. *gracilior*  
 n. var. Forel. 130.  
 \_\_\_\_\_ *rogersi*. Forel. 134.  
 \_\_\_\_\_ *rothneyi* var. *ciza* n. var.  
 Forel. 133.  
 \_\_\_\_\_ *sagei*. Forel. 133.  
 \_\_\_\_\_ var. *laetivota* n.  
 var. Forel. 133.



- CREMASTOGASTER** [Formicidae].  
 — *scita*. Forel. 134.  
 — *sordidula* var. *froggatti* n.  
     var. Forel. 134.  
 — — var. *queenslandica*  
     n. var. Forel. 134.  
 — *soror*. Forel. 133.  
 — *travancorensis*. Forel. 133.  
 — *valshi*. Forel. 133.  
 — *wroughtonii*. Forel. 133.  
 — *yappi*. Forel. 129a.
- CROCISA** [Anthophila].  
 — *jagerskiöldi*. Morice. 246.  
 — *kashmirensis*. Nurse. 260.
- CRYPTOCERUS** [Formicidae].  
 — *aztecus*. Wheeler. 371.  
 — *hamulus* var. *haytianus* n.  
     var. Forel. 129a.  
 — *wheeleri*. Wheeler. 371.
- CRYPTOPTYGE** [Ichneumonidae].  
 — *tricolor*. Szepligeti. 340.  
 — *unicolor*. Szepligeti. 340.
- CTENICHNEUMON** [Ichneumonidae].  
 — *plicatus*. Morley. 251.
- CYANOCRYPTUS** n. gen. [Ichneumonidae].  
 — Cameron. 63.  
 — *metallicus*. Cameron. 63.
- CYANOJOPPA** [Ichneumonidae].  
 — *albonotata*. Cameron. 59.  
 — *caerulea*. Cameron. 59.  
 — *striata*. Cameron. 59.
- CYPHOMYRMEX** [Formicidae].  
 — *rimosus* var. *major* n. var.  
     Wheeler. 371.
- Cyphopyga** n. gen. [Anthophila].  
 — Robertson. 287.
- Dagathia** n. gen. [Ichneumonidae].  
 — Cameron. 61.  
 — *brunnea*. Cameron. 61.
- DARACHOSIA** [Ichneumonidae].  
 — *fulvipes*. Cameron. 58.
- Dasiaptis** n. gen. [Anthophila].  
 — Cockerell. 84.  
 — *ochracea*. Cockerell. 84.
- DASYLABRIS** [Sphegidae].  
 — *hurei*. André. 6.
- DASYLABROIDES** [Sphegidae].  
 — *willoumorsensis*. André. 6.
- DASYPODA** [Anthophila].  
 — *minor*. Pérez. 270.
- Delebaea** n. gen. [Ichneumonidae].  
 — Cameron. 63.  
 — *albomaculata*. Cameron.  
     63.  
 — *fuscipes*. Cameron. 63.
- DIACAMMA** [Formicidae].  
 — *rufosum* var. *indicum* n. var.  
     Forel. 135.  
 — — var. *jerdoni* n.  
     var. Forel. 135.  
 — — var. *sikkimensis*  
     n. var. Forel. 135.
- Diacantharius** n. gen. [Ichneumonidae].  
 — Schmeideknecht. 316.  
 — *elegans*. Schmeideknecht.  
     316.
- DIADROMUS** [Ichneumonidae].  
 — *punicus* var. *ruficapus* n.  
     var. Pic. 275.
- Diagonosus** n. gen. [Anthophila].  
 — Enderlein. 113.  
 — *bicometes*. Enderlein. 113.
- Dialonia** n. gen. [Anthophila]. Robert-  
 — son. 286.
- DIANTHIDIUM** [Anthophila].  
 — *balli*. Titus. 343.
- DIATORA** [Ichneumonidae].  
 — *compressa* (nom. nud.).  
     Ashmead. 329.
- Diceratomia** n. gen. [Anthophila].  
 — Robertson. 287.
- Dileucolla** n. gen. [Cynipidae]. Ashmead.  
 — 13.
- DIMOETHA** [Ichneumonidae].  
 — *flavivitta*. Cameron. 60.  
 — *nigrolineata*. Cameron. 60.
- DINOTOMUS** ? [Ichneumonidae].  
 — *bicolor*. Szepligeti. 340.  
 — *spinosus*. Morley. 251.
- DIODONTUS** [Sphegidae].  
 — *friesci*. Kohl. 203.  
 — *major*. Kohl. 203.  
 — *moricei*. Kohl. 203.  
 — *rusticus*. Nurse. 262.  
 — *selectus*. Nurse. 262.  
 — *temporalis*. Kohl. 203.  
 — *tenuis*. Nurse. 262.
- DIPLOMORUM** [Sphegidae].  
 — *longipenne*. Mayr. 239.
- DISCOLIA** [Sphegidae].  
 — *erythropoda*. Cameron. 59.
- DISOPHYTS** [Braconidae].  
 — *dissors*. Kokujev. 206.  
 — *manifesta*. Kokujev. 206.
- DISSOMPHALUS** [Proctotrupidae].  
 — *harmandi*. Du Buysson.  
     105.

- DOLERUS** [Tenthredinidae].  
 ——— *lepidus*. Konow. 217.  
 ——— *orthomastus*. Konow. 217.
- Dolichoblastus** n. subgen. [Ichneumonidae]. Strobl. 336.
- DOLICHODERUS** [Formicidae].  
 ——— *burmanicus*. Bingham. 28.  
 ——— *turneri*. Forel. 134.
- DOBYMYRMEX** [Formicidae].  
 ——— *baeri*. André. 7.
- Drepanium** n. gen. [Anthophila].  
 Robertson. 286.
- DRYINUS** [Proctotrupidae].  
 ——— *ormenidis*. Ashmead. 12.
- DYSEIDOPTIS** [Ichneumonidae].  
 ——— *vancouverensis*. Bradley. 34.
- ECHTRUS** [Ichneumonidae].  
 ——— *sibiricus*. Kokujev. 207.
- ECITON** [Formicidae].  
 ——— *goeldii*. Forel. 132.
- ECLYTUS** [Ichneumonidae].  
 ——— *haematathorax*. Strobl. 336.
- ECTATOMMA** [Formicidae].  
 ——— *diehlii*. Forel. 129a.
- ELIS** [Sphegidae].  
 ——— *pygmaea*. Schrottky. 317.  
 ——— *rubricata*. Nurse. 260.
- ELLAMPUS** [Chrysididae].  
 ——— *andinus*. Cameron. 63.  
 ——— *glomeratus*. Du Buysson. 106.  
 ——— *harmandi*. Du Buysson. 105.
- Emeryella** n. gen. [Formicidae]. Forel. 129a.  
 ——— *schmitti*. Forel. 129a.
- EMPTYBIS** [Proctotrupidae].  
 ——— *subapterus*. Melander and Brues. 241.
- ENCARSIONEURA** [Tenthredinidae].  
 ——— *venusta*. Konow. 217.
- Enchisiades** n. gen. [Ichneumonidae].  
 Cameron. 58.  
 ——— *rufipes*. Cameron. 58.
- EPEOLUS** [Anthophila].  
 ——— *autumnalis*. Robertson. 285.  
 ——— *friesei*. Brauns. 39.  
 ——— *penicilliferus*. Brues. 47.  
 ——— *scelestus* var. *tubercularis* n. var. Brues. 47.
- EPHIALTES** [Ichneumonidae].  
 ——— *insignis*. Habermehl. 173.

- Epipheidole** n. gen. [Formicidae].  
 Wheeler. 366.  
 ——— *inquilina*. Wheeler. 366.
- EPITOMUS** [Ichneumonidae].  
 ——— *americanus* (nom. nud.).  
 Ashmead. 329.
- Erebomyrma** n. gen. [Formicidae].  
 Wheeler. 367.  
 ——— *longii*. Wheeler. 367.
- ERIGLENUM** [Tenthredinidae].  
 ——— *lumeratum*. Konow. 211.
- ERROMENUS** [Ichneumonidae].  
 ——— *annulicornis*. Strobl. 336.  
 ——— *bimucronatus*. Strobl. 336.  
 ——— *defectivus* n. nom. Strobl. 336.  
 ——— *trochanteratus*. Strobl. 366.
- ERYTHROJOPPA** [Ichneumonidae].  
 ——— *lineata*. Cameron. 59.  
 ——— *nigromaculata*. Cameron. 60.
- Etha** n. gen. [Ichneumonidae]. Cameron. 61.  
 ——— *dentata*. Cameron. 61.  
 ——— *fusciventris*. Cameron. 61.  
 ——— *laerifrons*. Cameron. 61.  
 ——— *plumbea*. Cameron. 61.  
 ——— *rufosemorata*. Cameron. 61.  
 ——— *striatifrons*. Cameron. 61.  
 ——— *testaceipes*. Cameron. 61.
- EUCERA** [Anthophila].  
 ——— *andicola*. Cameron. 67.  
 ——— *barbirentis*. Pérez. 269. §  
 ——— *hellenica*. Pérez. 269. §  
 ——— *hispaniensis*. Pérez. 269. §  
 ——— *parnassia*. Pérez. 269. §  
 ——— *platyrhina*. Pérez. 269. §
- EUGLOSSA** [Anthophila].  
 ——— *dimidiata* var. *quadri-*  
*fasciata* n. var. Friese. 160.  
 ——— *magretta* var. *nigrata* n. var.  
 Friese. 160.  
 ——— *peruriana*. Friese. 160.  
 ——— *pretiosa*. Friese. 160.
- Eumecopone** n. subgen. [Formicidae].  
 Forel. 129a.
- ECMENES** [Vespididae].  
 ——— *placens*. Nurse. 260.  
 ——— *tiatrix*. Nurse. 260.
- EUPELMUS** [Chalcididae].  
 ——— *ashmeadii*. Melander and  
 Brues. 241.

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**EUPONERA** [Formicidae].

- \_\_\_\_\_ *arhuaca*. Forel. 132.  
 \_\_\_\_\_ *atrovirens*: *splendida* n. st.  
                     Forel. 132.  
 \_\_\_\_\_ *fossigera*. Mayr. 239.  
 \_\_\_\_\_ *sharpi*. Forel. 129a.  
 \_\_\_\_\_ *wroughtonii*. Forel. 132.

**Eurycephalus** n. gen. [Chalcididae].

- \_\_\_\_\_ Ashmead. 18.  
 \_\_\_\_\_ *alcocki*. Ashmead. 18.

**ECRYPTOCUTUS** [Ichneumonidae].

- \_\_\_\_\_ *albitarsis*. Strobl. 336.  
 \_\_\_\_\_ *alboannulatus*. Strobl. 336.  
 \_\_\_\_\_ *albocoxatus*. Strobl. 336.  
 \_\_\_\_\_ *splendidiissimus*. Strobl. 336.  
 \_\_\_\_\_ *subalpinus*. Strobl. 336.

**Eutanyacra** n. gen. [Ichneumonidae].

- \_\_\_\_\_ Cameron. 58.  
 \_\_\_\_\_ *pallidicoxis*. Cameron. 58.  
 \_\_\_\_\_ *stramineomaculata*. Cam-  
                     eron. 60.

**EVANIA** [Evanidae].

- \_\_\_\_\_ *alboannulata*. Szepligeti.  
                     339.  
 \_\_\_\_\_ *australiensis* ♂. Szepligeti.  
                     339.  
 \_\_\_\_\_ *chinensis* ♂. Szepligeti. 339.  
 \_\_\_\_\_ *lombokiensis* ♂. Szepligeti.  
                     339.  
 \_\_\_\_\_ *major*. Szepligeti. 339.  
 \_\_\_\_\_ *orientalis*. Szepligeti. 339.  
 \_\_\_\_\_ *parva* ♀. Szepligeti. 339.  
 \_\_\_\_\_ *pilifera*. Szepligeti. 339.  
 \_\_\_\_\_ *pubipennis* ♀. Szepligeti.  
                     339.  
 \_\_\_\_\_ *pulcherrima*. Szepligeti. 339.  
 \_\_\_\_\_ *pulchra* ♂. Szepligeti. 339.  
 \_\_\_\_\_ *rufidorsum* ♂. Szepligeti.  
                     339.  
 \_\_\_\_\_ *similata* ♀ ♂. Szepligeti.  
                     339.  
 \_\_\_\_\_ *similis* ♂. Szepligeti. 339.  
 \_\_\_\_\_ *tomentosa* ♂. Szepligeti.  
                     339.

**Evaniscus** n. gen. [Evanidae]. Szepli-

- \_\_\_\_\_ geti. 339.  
 \_\_\_\_\_ *tibialis*. Szepligeti. 339.

**Evirochoma** n. gen. [Ichneumonidae].

- \_\_\_\_\_ Cameron. 58.  
 \_\_\_\_\_ *pallidimaculata*. Cameron.  
                     58.

**EXOCHILUM** [Ichneumonidae].

- \_\_\_\_\_ *varicolor*. Viereck. 347.

**EXOCHUS** [Ichneumonidae].

- \_\_\_\_\_ *fasciatus*. Strobl. 336.  
 \_\_\_\_\_ *pseudaffinis*. Strobl. 336.

**Fedalma** n. gen. [Ichneumonidae].

- \_\_\_\_\_ Cameron. 59.  
 \_\_\_\_\_ *tricolor*. Cameron. 59.

**FORMICA** [Formicidae].

- \_\_\_\_\_ *fusca* var. *densicentris* n. var.  
                     Viereck. 347.  
 \_\_\_\_\_ *microgyna*. Wheeler. 365.  
 \_\_\_\_\_ var., *rasilis* n.  
                     var. Wheeler. 365.  
 \_\_\_\_\_ *oreas*. Wheeler. 365.

**GALESUS** [Proctotrupidae].

- \_\_\_\_\_ *coxalis* (nom. nud). Ash-  
                     mead. 328.

**GASTERUPTION** [Evanidae].

- \_\_\_\_\_ *andrei*. Kieffer. 198.  
 \_\_\_\_\_ *birdi*. Szepligeti. 339.  
 \_\_\_\_\_ *caudatum*. Szepligeti. 339.  
 \_\_\_\_\_ *coriaceum*. Szepligeti. 339.  
 \_\_\_\_\_ *exiguum*. Szepligeti. 339.  
 \_\_\_\_\_ *fallaciosum*. Szepligeti.  
                     339.  
 \_\_\_\_\_ *storeum*. Szepligeti. 339.  
 \_\_\_\_\_ *foreolum*. Szepligeti. 339.  
 \_\_\_\_\_ *hyalinipenne*. Szepligeti.  
                     339.  
 \_\_\_\_\_ *proximum*. Szepligeti. 339.  
 \_\_\_\_\_ *sourae*. Schletterer. 314.  
 \_\_\_\_\_ *syriacum*. Szepligeti. 339.

**GASTROSERICUS** [Sphegidae].

- \_\_\_\_\_ *electus*. Nurse. 262.

**GLIPTA** [Ichneumonidae].

- \_\_\_\_\_ *areolata*. Viereck. 347.

**Gnathodon** n. gen. [Anthophila]. Robert-

- \_\_\_\_\_ son. 287.  
**Gnathosmia** n. gen. [Anthophila].  
                     Robertson. 287.

**GONATOPUS** [Proctotrupidae].

- \_\_\_\_\_ *peculiaris*. Brues. 45.

**GORYTES** [Sphegidae].

- \_\_\_\_\_ *bergii* Handlirsch. 176.  
 \_\_\_\_\_ *foxii*. Handlirsch. 176.  
 \_\_\_\_\_ *imitator*. Handlirsch. 176.  
 \_\_\_\_\_ *impudens*. Nurse. 262.  
 \_\_\_\_\_ *intrudens*. Nurse. 262.  
 \_\_\_\_\_ *lenis*. Nurse. 260.  
 \_\_\_\_\_ *mimetes*. Handlirsch. 176.

**GOTRA** [Ichneumonidae].

- \_\_\_\_\_ *carinifrons*. Cameron. 61.

**HABROJOPPA** [Ichneumonidae].

- \_\_\_\_\_ *leucozona*. Cameron. 60.  
 \_\_\_\_\_ *maculiceps*. Cameron. 60.

**HABROPODA?** [Anthophila].

- \_\_\_\_\_ *carinifrons*. Cameron. 67.

**Hadrocryptus** n. gen. [Ichneumonidae].  
Cameron. 61.  
—— *nasutus*. Cameron. 61.

**HADRODACTYLUS** [Ichneumonidae].  
—— *affinis* (nom. nud.). Ashmead.  
328.

**HADROJOPPA** [Ichneumonidae].  
—— *forticornis*. Cameron. 60.

**Hagensia** n. subgen. [Formicidae].  
Forel. 132.

**HALICTOIDES** [Anthophila].  
—— *davidsoni*. Cockerell. 82.  
—— *oryx*. Viereck. 347.

**HALICTUS** [Anthophila].  
—— *altinus*. Pérez. 270.  
—— *analis*. Pérez. 270.  
—— *apristus*. Vachal. 344.  
—— *arctifrons*. Saunders. 307.  
—— *atrovirens*. Pérez. 270.  
—— *aureolus*. Pérez. 270.  
—— *azureus*. Enderlein. 113.  
—— *balearicus*. Pérez. 270.  
—— *barcelonicus*. Pérez. 270.  
—— *bengalensis*. Cameron. 57.  
—— *brevithorax*. Pérez. 270.  
—— *buccalis*. Pérez. 270.  
—— *capitalis*. Pérez. 270.  
—— *carianus*. Cameron. 59.  
—— *collopiensis*. Pérez. 270.  
—— *cordialis*. Pérez. 270.  
—— *cupromicans*. Pérez. 270.  
—— *cyanomelas*. Pérez. 270.  
—— *delicatus*. Pérez. 270.  
—— *delmasi*. Pérez. 270.  
—— *dissidens*. Pérez. 270.  
—— *ecuadorensis*. Cameron. 67.  
—— *exiliceps*. Vachal. 344.  
—— *fratellus*. Pérez. 270.  
—— *gavarnicus*. Pérez. 270.  
—— *geminatus*. Pérez. 270.  
—— *gibbulus*. Pérez. 270.  
—— *harmandi*. Vachal. 344.  
—— *interstitialis*. Cameron. 57.  
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—— *leoninus*. Vachal. 344.  
—— *leucopygus*. Pérez. 270.  
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—— *mutilus*. Vachal. 344.  
—— *nasus*. Enderlein. 113.  
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—— *nitidulus*. Pérez. 270.  
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**HALICTUS** [Anthophila].  
—— *pyrenaicus*. Pérez. 270.  
—— *quadraticollis*. Vachal. 344.  
—— *resurgens*. Nurse. 260.  
—— *taeniolellus*. Vachal. 344.  
—— *therestensis*. Pérez. 270.  
—— *trincomalicus*. Cameron.  
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—— *trispinis*. Vachal. 344.  
—— *turkomanus*. Pérez. 270.  
—— *unguinus*. Pérez. 270.  
—— *validus*. Bingham. 29.  
—— *ventralis*. Pérez. 270.  
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—— *vulsus*. Vachal. 344.

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Cameron. 65.  
—— *maculipes*. Cameron. 65.

**HARRINANIELLA** [Ichneumonidae].  
—— *ariel*. Viereck. 347.  
—— *minor*. Viereck. 347.

**Harsaces** n. gen. [Ichneumonidae].  
Cameron. 65.  
—— *nigripes*. Cameron. 65.

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—— *haurianum*. Du Buysson.  
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**HEMIDIANEURA** [Tenthredinidae].  
—— *coeliaca*. Konow. 211.

**HEMILEXODES** [Proctotrupidae].  
—— *ambigua*. Brues. 45.  
—— *rotundiceps* (nom. nud.).  
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**HEMITELES** [Ichneumonidae].  
—— *intermedius*. Cameron. 61.  
—— *khasianus*. Cameron. 61.

**HERIADES** [Anthophila].  
—— *odontura*. Cockerell. 82.

**HIMERTOSOMA** [Ichneumonidae].  
—— *quinguecinctum* (nom. nud.).  
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—— *faf*. Forel. 131.  
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—— *kohli*. Du Buysson. 106.  
—— *nursei*. Bingham. 28.  
—— *pallidolimbata*. Ducke. 107.

**HOMALOTYLUS** [Chalcididae].  
—— *slossonae* (nom. nud.).  
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**HOMOGAMBRUS** [Sphagidae].  
—— *creon*. Nurse. 262.  
—— *menelaus*. Nurse. 262.

- HYPOFERREOLA** [Sphegidae].  
 — *ambatoensis*. Cameron. 67.  
 — *machachiensis*. Cameron. 67.
- HYPTIA** [Evanidae].  
 — *brasilensis*. Szepligeti. 339.  
 — *nigriventris*. Szepligeti. 339.  
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- ICHNEUMON** [Ichneumonidae].  
 — *boghariensis*. Pic. 275.  
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 — *defraudator* var. *viturati* n. var. Pic. 275.  
 — *erythraeus* var. *tenietensis* ♀ n. var. Pic. 275.  
 — *montanus*. Habermehl. 173.  
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 — *vaucheri*. Pic. 275.  
 — *venustus* Kokujev. 207.
- ISOLEXIS** [Ichneumonidae].  
 — *collaris* (nom. nud.). Ashmead. 329.
- IDRIS** [Proctotrupidae].  
 — *nigricornis*. Brues. 45.
- ILEANTA** [Ichneumonidae].  
 — *fulvipes*. Cameron. 60.  
 — *trochanterata*. Cameron. 60.
- IMERIA** n. gen. [Ichneumonidae].  
 — Cameron. 59.  
 — *albomaculata*. Cameron. 59.
- IRIDOMYRMEX** [Formicidae].  
 — *chasei*. Forel. 134.  
 — var. *concolor* n. var. Forel. 134.  
 — *conifer*. Forel. 134.  
 — *discors*. Forel. 134.  
 — var. *obscurior* n. var. Forel. 134.  
 — *myrmecodia* var. *andamensis* n. var. Forel. 135.
- ISCHNOPUS** [Ichneumonidae].  
 — *subbifasciatus*. Szepligeti. 340.
- JAVRA** n. gen. [Ichneumonidae]. Cameron. 61.  
 — *longicornis*. Cameron. 61.  
 — *parviceps*. Cameron. 61.
- JOPPA** [Ichneumonidae].  
 — *affinis*. Szepligeti. 340.  
 — *bipunctata*. Szepligeti. 340.  
 — *major*. Szepligeti. 340.  
 — *marginalis*. Szepligeti. 340.
- JOPPA** [Ichneumonidae].  
 — *paraguayensis*. Szepligeti. 340.  
 — *parva*. Szepligeti. 340.  
 — *peruana*. Szepligeti. 340.
- KENTROTYPHON** n. gen. [Ichneumonidae].  
 — Strobl. 336.  
 — *longicaudatus*. Strobl. 336.
- KIEFFERIELLA** n. nom. [Cynipidae]. Ashmead. 13.
- LABIDARGE** [Tenthredinidae].  
 — *torquata*. Konow. 211.
- LABIDOMILLA** n. gen. [Sphegidae]. André. 4.
- LABRORYCHUS** [Ichneumonidae].  
 — *transcaspicus*. Kokujev. 207.
- LAMPROJOPPA** [Ichneumonidae].  
 — *fuscinerva*. Cameron. 60.
- LARRA** [Sphegidae].  
 — *neæra*. Nurse. 262.  
 — *partula*. Schrottky. 317.
- LARSEPHNA** n. gen. [Ichneumonidae].  
 — Cameron. 63.  
 — *flavolineata*. Cameron. 63.  
 — *varipes*. Cameron. 63.
- LASIUS** [Formicidae].  
 — *alieno-flavus*. Bingham. 28.  
 — *murphii*. Forel. 129a.  
 — *umbratus*: *subumbratus* n. subsp. Viereck. 347.
- LEGNATIA** n. gen. [Ichneumonidae].  
 — Cameron. 58.  
 — *fulvipes*. Cameron. 58.
- LEPTANILLA** [Formicidae].  
 — *havilandi*. Forel. 129a.
- LEPTOCRYPTUS** n. gen. [Ichneumonidae].  
 — Cameron. 61.  
 — *longiventris*. Cameron. 61.
- LEPTOGENYS** [Formicidae].  
 — *havilandi*. Forel. 132.  
 — *hemioptica*. Forel. 132.  
 — *iridescens*: *currans* n. st. Forel. 132.  
 — *mucronata* var. *columbica* n. var. Forel. 132.  
 — *parva*. Forel. 132.  
 — *pubiceps*: *vincentensis* n. st. Forel. 132.  
 — *unstimulosa* var. *trinidensis* n. var. Forel. 132.  
 — *wheeleri*. Wheeler. 371.

- Leptothecus** n. gen. [Ichneumonidae].  
Cameron. 65.  
—— *rufomaculatus*. Cameron. 65.
- LEPTOTHORAX** [Formicidae].  
—— *canadensis* var. *convivialis* n. var. Wheeler. 388.  
—— : *obscurus* n. subsp. Viereck. 347.  
—— *congruus* var. *spinosus* or n. var. Forel. 129a.  
—— *curvispinosus* : *annectens* n. subsp. Wheeler. 368.  
—— var. *rugatulus* n. var. Wheeler. 368.  
—— *denticulatus*. Mayr. 230.  
—— *fortinodis* var. *gilvus* n. var. Wheeler. 368.  
—— var. *melanoticus* n. var. Wheeler. 368.  
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—— *neomexicanus*. Wheeler. 368.  
—— *nevadensis*. Wheeler. 368.  
—— *nitens* : *occidentalis* n. subsp. Wheeler. 368.  
—— var. *heathii* n. var. Wheeler. 368.  
—— *oblurator*. Wheeler. 368.  
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—— *rothneyi*. Forel. 133.  
—— *schmittii*. Wheeler. 368.  
—— *semenovi*. Ruzskij. 299.  
—— *taylori*. Forel. 133.  
—— *terrigena*. Wheeler. 368.  
—— *texanus*. Wheeler. 268.
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- Liebellia** n. gen. [Cynipidae]. Kieffer. 197.  
—— *catarae*. Kieffer. 197.
- LIMNERIUM** [Ichneumonidae].  
—— *australis*. Viereck. 347.  
—— *obscuripes*. Viereck. 347.  
—— *taeniolata*. Viereck. 347.
- Linytus** n. gen. [Ichneumonidae].  
Cameron. 65.  
—— *rufipes*. Cameron. 65.
- Liotryphon** n. gen. [Ichneumonidae].  
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- Lissonota** [Ichneumonidae].  
—— *electra*. Viereck. 347.  
—— *fenella*. Viereck. 347.
- Lithurgopsis** n. gen. [Anthophila].  
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—— *gibbosus* var. *opuntiac* n. var. Cockerell. 77.
- LOBOCEROS** [Tenthredinidae].  
—— *frater*. Konow. 211.
- LOBOPELTA** [Formicidae].  
—— *moelleri*. Bingham. 28.
- Lortygia** n. gen. [Ichneumonidae].  
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—— *rufa*. Cameron. 65.
- Losgna** n. gen. [Ichneumonidae].  
Cameron. 58.  
—— *forticeps*. Cameron. 58.
- Machaeris** n. gen. [Anthophila].  
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—— *illinoensis*. Robertson. 286.
- MACROCERA** [Anthophila].  
—— *antigae*. Pérez. 269.  
—— *confusa*. Pérez. 269.
- MACRODYCTIUM** [Braconidae].  
—— *monticola* (nom. nud.). Ashmead. 329.
- MACROJOPPA** [Ichneumonidae].  
—— *bifasciata*. Szepilgeti. 340.  
—— *haematodes*. Szepilgeti. 340.
- MACROMISCHA** [Formicidae].  
—— *lucayensis*. Forel. 129a.
- Macrosterotrichus** n. subgen. [Ichneumonidae]. Kokujev. 207.
- Mayriella** n. gen. [Formicidae]. Forel. 134.  
—— *abstinens*. Forel. 134.
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—— *albiceps*. Friese. 154.  
—— *albocaudata*. Friese. 154.  
—— *alboscopacea*. Friese. 154.  
—— *angelarum*. Cockerell. 82.  
—— *antisanellae*. Cameron. 67.  
—— *appia*. Nurse. 260.  
—— *assimilis*. Friese. 154.  
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—— *congruens*. Friese. 157.  
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 — *guachalensis*. Cameron. 67.  
 — *ikuthaensis*. Friese. 157.  
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 — *monoceros*. Friese. 154.  
 — *nadia*. Nurse. 260.  
 — *nasicornis*. Friese. 157.  
 — *nigriceps*. Friese. 157.  
 — *nigrocaudata*. Friese. 157.  
 — *nivalis*. Friese. 155.  
 — *occidentalis* var. *leucotricha*  
   n. var. Cockerell. 82.  
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 — *pruinosa*. Friese. 155.  
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 — *tomtosa*. Friese. 154.  
 — *tricarinata*. Bingham. 27.  
 — *tricolor*. Friese. 157.  
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**MEGACILLISA** [Anthophila].

- *albofimbriata*. Cameron. 67.  
 — *fulvopilosa*. Cameron. 67.

**MEGALOPONERA** [Formicidae].

- *harilandi*. Forel. 132.

**MEGASPILUS** [Proctotrupidae].

- *alticola* (nom. nud.). Ashmead. 328.

**Melanomada** n. subgen. [Anthophila].

- Cockerell. 74.

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- Morley. 251.  
 — *elliotti*. Morley. 251.

**MELANOSTELIS** [Anthophila].

- *nyssonoides*. Brues. 47.

**MELIPONA** [Anthophila].

- *basimaculata*. Bingham. 29.  
 — *castanea*. Bingham. 29.  
 — *seminigra*. Friese. 158.

**MELISSODES** [Anthophila].

- *humilior*. Cockerell. 84.

**Meliturgula** n. gen. [Anthophila].

- Friese. 152.  
 — *braunsi*. Friese. 152.

**MELOPHORUS** [Formicidae].

- *curtus*. Forel. 134.  
 — *formicoides*. Forel. 134.  
 — *hirsutus*. Forel. 134.  
 — *ludius*. Forel. 134.

**MENISCUS** [Ichneumonidae].

- *occidentalis*. Viereck. 347.

**MERANOPLUS** [Formicidae].

- *bellii*. Forel. 133.  
 — *diversus*: *unicolor* n. subsp.  
   Forel. 134.  
 — *hirsutus*: *minor* n. subsp.  
   Forel. 134.  
 — *rothneyi*. Forel. 133.  
 — *simoni*: *nitidiventris* n. subsp.  
   Mayr. 239.

**MESITIUS** [Proctotrupidae].

- *myrmecophilus*. Brues. 45.

**MESOCHORUS** [Ichneumonidae].

- *areolatus*. Viereck. 347.

**MESOLEIUS** [Ichneumonidae].

- *albicoxis*. Strobl. 336.  
 — *albotibialis*. Strobl. 336.  
 — *compressiventris*. Strobl. 336.  
 — *fuscotrochanteratus*. Strobl. 336.  
 — *jugorum*. Strobl. 336.  
 — *laetissimus*. Strobl. 336.  
 — *leucomelas*. Habermehl. 174.  
 — *subcoriaceus*. Strobl. 336.

- MESOLEPTUS** [Ichneumonidae].  
 — *alticola*. Strobl. 336.
- METEORUS** [Braconidae].  
 — *agilis*. Viereck. 347.  
 — *areolatus* (nom. nud.). Ashmead. 329.  
 — *mellinervus*. Viereck. 347.
- METHOCA** [Sphegidae].  
 — *incerta*. André. 6.
- MICRODUS** [Braconidae].  
 — *latiannulipes* (nom. nud.). Ashmead. 328.  
 — *meridionalis*. Viereck. 347.  
 — *tricoloripes* (nom. nud.). Ashmead. 328.
- MICRORHOGAS** [Braconidae].  
 — *niger* (nom. nud.). Ashmead. 329.
- Microstelis** n. gen. [Anthophila].  
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- Miotoponera** n. subgen. [Formicidae].  
 Forel. 129a.
- MIMESA** [Sphegidae].  
 — *alticola*. Viereck. 347.
- MISCOPHUS** [Sphegidae].  
 — *difficilis*. Nurse. 262.  
 — *eatonii*. Saunders. 305.  
 — *quettaensis*. Nurse. 262.
- Monilosmia** n. gen. [Anthophila].  
 Robertson. 287.
- MONOBLASTUS** [Ichneumonidae].  
 — *flatopictus*. Strobl. 336.  
 — *nigriventris* (nom. nud.). Ashmead. 329.
- MONOMACHUS** [Evanidae].  
 — *bicolor*. Szepilgeti. 339.
- MONOMORIUM** [Formicidae].  
 — *aberrans*. Forel. 133.  
 — *antipodum*. Forel. 129a.  
 — *atomus*. Forel. 133.  
 — var. *integrus* n.  
 var. Forel. 133.  
 — *braunsi*. Mayr. 239.  
 — *dichroum*. Forel. 133.  
 — *froggatti*. Forel. 134.  
 — *gilberti*. Forel. 134.  
 — *gracillimum* var. *matris* n.  
 var. Forel. 133.  
 — *heyeri*. Forel. 130.  
 — *kilianii*. Forel. 134.  
 — *longi*. Forel. 133.  
 — *rothsteinii*. Forel. 134.  
 — *sagei*. Forel. 133.  
 — *schurrii*. Forel. 133.  
 — *sordidum*. Forel. 134.  
 — *sydneyense*. Forel. 134.  
 — *wroughtoni*. Forel. 133.
- MUTILLA** [Sphegidae].  
 — *adscripta*. Nurse. 260.  
 — *aprica*. Melander. 240.  
 — *atervsa*. Nurse. 260.  
 — *birkmani*. Melander. 240.  
 — *chirindana*. André. 6.  
 — *chlamydata*. Melander. 240.  
 — *cockerelli*. Melander. 240.  
 — *erebus*. Melander. 240.  
 — *grata*. Melander. 240.  
 — *hamata*. Melander. 240.  
 — *hebes*. Melander. 240.  
 — *henshawi*. Melander. 240.  
 — *impar*. Melander. 240.  
 — *infensa*. Melander and  
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 — *inornata*. André. 6.  
 — *kraciva*. Nurse. 260.  
 — *malinka*. Nurse. 260.  
 — *marshalli*. André. 6.  
 — *noctivaga*. Melander. 240.  
 — *officia*. Nurse. 260.  
 — *pattersonae*. Melander. 240.  
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 — *philippa*. Nurse. 260.  
 — *poecilomota*. Melander. 240.  
 — *pudica*. Melander. 240.  
 — *salisburyana*. André. 6.  
 — *sayi* var. *hollensis* n. var.  
 Melander. 240.  
 — *simiana*. André. 6.  
 — *simpliciventris*. Melander.  
 240.  
 — *sudatrix*. Melander. 240.  
 — *suspecta*. Nurse. 260.  
 — *susura*. Melander. 240.  
 — *trita*. Melander. 240.  
 — *venenaria*. Melander. 240.  
 — *vincula*. Nurse. 260.  
 — *westcottii*. Melander. 240.  
 — *wheeleri*. Melander. 240.
- MYRMO** [Ichneumonidae].  
 — *fumipennis*. Cameron. 59.  
 — *maculitarsis*. Cameron. 59.
- MYOPOPONE** [Formicidae].  
 — *moelleri*. Bingham. 28.
- MYRMECINA** [Formicidae].  
 — *rugosa*. Forel. 134.
- MYRMECOOYSTUS** [Formicidae].  
 — *foreli*. Ruzskij. 300.  
 — *lameerei*. Forel. 131.
- Myrmecosallus** n. gen. [Sphegidae].  
 Ashmead. 14.  
 — *nigriceps*. Ashmead. 14.
- MYRMICA** [Formicidae].  
 — *bergi*. Ruzskij. 302.  
 — *inezae*. Forel. 133.  
 — *smythiesii*. Forel. 133.



- MYRMICARIA [Formicidae].  
 — *baumii*. Forel. 141.
- MYRMILLA [Sphegidae].  
 — *echinata*. André. 6.  
 — *spinidorsis*. André. 6.
- MYRMILLOIDES n. gen. [Sphegidae].  
 — André. 4.
- NAENARIA n. gen. [Ichneumonidae].  
 — Cameron. 59.  
 — *grandiceps*. Cameron. 59.
- NECTARINIA [Vespididae].  
 — *augusti* var. *quinta* n. var.  
 — Ihering. 190.  
 — *baccalaurea*. Ihering. 190.
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 — *agilis*. Forel. 129a.  
 — *emiliae*. Forel. 132.  
 — *stipitum*. Forel. 132.
- NOMADA [Anthophila].  
 — *americana*: *daetana* n.  
 — subsp. Cockerell. 74.  
 — *angelarum*. Cockerell. 73.  
 — *aquilarum*. Cockerell. 83.  
 — *arida*. Nurse. 260.  
 — *ashmeadi*. Cockerell. 73.  
 — *astori*. Cockerell. 83.  
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 — *atrofrontata*. Cockerell. 73.  
 — *aztecorum*. Cockerell. 83.  
 — *beata*. Nurse. 260.  
 — *beulahensis*. Cockerell. 83.  
 — *bifurcata*. Cockerell. 73.  
 — *californiae*. Cockerell. 73.  
 — *carolinae*. Cockerell. 74.  
 — *citrina* var. *rufula* n. var.  
 — Cockerell. 74.  
 — *elarkii*. Cockerell. 83.  
 — *coloradensis*. Cockerell. 74.  
 — *coquilletti*. Cockerell. 73.  
 — *cordleyi*. Cockerell. 84.  
 — *cortalliensis*. Cockerell. 84.  
 — *crassula*. Cockerell. 74.  
 — *crotchii* var. *nitrior* n. var.  
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 — *crucis*. Cockerell. 83.  
 — *daidsoni*. Cockerell. 73.  
 — *decempunctata*. Cockerell.  
 — 74.  
 — *edwardsii* var. *australior* n.  
 — var. Cockerell. 73.  
 — *elertella*. Cockerell. 74.  
 — *elegantula*. Cockerell. 73.  
 — *elrodi*. Cockerell. 74.  
 — *erythrochroa*. Cockerell. 83.  
 — *excellens*. Cockerell. 73.  
 — *exourens*. Cockerell. 73.
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 — *formula*. Viereck. 349.  
 — *fouderi*. Cockerell. 83.  
 — *grayi*. Cockerell. 83.  
 — : *eastonensis* n.  
 — subsp. Cockerell. 74.  
 — *grindeliae*. Cockerell. 83.  
 — *hemphilli*. Cockerell. 73.  
 — *hesperia*. Cockerell. 73.  
 — *hoodiana*. Cockerell. 74.  
 — *kincaidiana*. Cockerell. 74.  
 — *latifrons*. Cockerell. 73.  
 — *lehighensis*. Cockerell. 73.  
 — *leucis*. Cockerell. 83.  
 — *lippiae*. Cockerell. 83.  
 — *louisianae*. Cockerell. 74.  
 — *magnifica*. Cockerell. 74.  
 — *marginella*. Cockerell. 73.  
 — *martinella*. Cockerell. 74.  
 — *modesta* var. *rivertonensis*  
 — n. var. Cockerell. 74.  
 — var. *vegana* n. var.  
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 — *radoszkowskii* var. *interea* n. var. Forel. 129a.  
 — — var. *opacissima* n. var. 129a.  
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- fragilis*. *Viereck*. 347.

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 — *trispinosus*. Pérez. 270.
- RHOPTROMYRMEX** n. gen. [Formicidae].  
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 — *sirdari*. Morice. 246.
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 — *skinneri*. Viereck. 347.
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 — *nigripes*. Ashmead. 329.
- SALIS** [Sphegidae].  
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 — *aridus*. Nurse. 260.  
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 — *gansuana*. Kokujev. 207.
- SCELIO** [Proctotrupidae].  
 — *ashmeadi*. Viereck. 347.
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 — *brasiliense*. Schrottky. 317.  
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 — *robinsoni*. Bingham. 29.
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 — *monticola*. Ashmead. 323.
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 — *albomarginatus*. Ashmead.  
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- SETANTA** [Ichneumonidae].  
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- SILSILA** n. gen. [Ichneumonidae].  
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 — *bilineata*. Cameron. 61.  
 — *fulripes*. Cameron. 61.
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- *opacifrons*. Pérez. 270.  
 — *oriundus*. Vachal. 344.  
 — *perplexus*. Nurse. 260.  
 — *pinguiculus*. Pérez. 270.  
 — *rimalis*. Pérez. 270.  
 — *sulcicollis*. Pérez. 270.  
 — *sutor*. Nurse. 260.  
 — *tantalus*. Nurse. 260.

**Sphecodium** n. gen. [Anthophila].

- Robertson. 286.  
 — *cressonii*. Robertson. 286.

**SPHEX** [Sphegidae].

- *edwardsi*. Cameron. 67.  
 — *fragilis*. Nurse. 262.  
 — *retractus*. Nurse. 262.

**SPILOCRYPTUS** [Ichneumonidae].

- *ezareolatus*. Viereck. 347.  
 — *neomexicana*. Viereck. 347.

**STENAMMA** [Formicidae].

- *barbarum*. Forel. 133.  
 — *caviceps*. Forel. 131.  
 — *cristatus*. Forel. 133.  
 — *feae*: *nicobarensis* n. st.  
 Forel. 135.  
 — *rothneyi*. Forel. 133.  
 — *sagei*. Forel. 133.  
 — *smythiesii*. Forel. 133.  
 — var. *prudens* n.  
 var. Forel. 133.  
 — var. *schurri* n.  
 var. Forel. 133.  
 — *vestwoodi* var. *msilanum* n.  
 var. Forel. 130.

**Steriphocryptus** n. gen. [Ichneumonidae].

- Cameron. 65.  
 — *luteus*. Cameron. 65.

**STICTOPONERA** [Formicidae].

- *costata* var. *unicolor* n. var.  
 Forel. 132.

**STIGMUS** [Sphegidae].

- *cucullus*. Nurse. 262.

**STIZUS** [Sphegidae].

- *coloratus*. Nurse. 260.  
 — *conscriptus*. Nurse. 260.  
 — *imperator*. Nurse. 260.  
 — *tridens*. Dominique. 97.

**STROMBOCEROS** [Tenthredinidae].

- *bitinctus*. Konow. 212.  
 — *caligatus*. Konow. 212.  
 — *parmatum*. Konow. 212.  
 — *phaleratus*. Konow. 212.  
 — *sudus*. Konow. 212.  
 — *suppar*. Konow. 212.  
 — *utilis*. Konow. 212.  
 — *zonatus*. Konow. 212.

**STRUMIGENYS** [Formicidae].

- *clypeata* var. *pilinasis* n. var.  
 Forel. 130.  
 — *emarginata*. Mayr. 239.  
 — *godefroyi* var. *indica* n. var.  
 Forel. 133.  
 — *guttulata*. Forel. 134.  
 — *smythiesii*. Forel. 133.

**Sycaonia** n. gen. [Ichneumonidae].

- Cameron. 58.  
 — *rufifacies*. Cameron. 58.

**SYMMORPHIS** [Vespididae].

- *meridionalis*. Viereck. 347.

**SYNAGRIS** [Vespididae].

- *clypeata*. Mocsáry. 245.  
 — *denticulata*. Mocsáry. 245.  
 — *fasciata*. Mocsáry. 245.  
 — *fulva*. Mocsáry. 245.  
 — *inermis*. Mocsáry. 245.

**STNTASIS** [Chalcididae].

- *diplosidis*. Eckel. 111.

**TACHYSPHEX** [Sphegidae].

- *abjectus*. Kohl. 204.  
 — *brevilarsis*. Kohl. 204.  
 — *conclusus*. Nurse. 260.  
 — *hostilis*. Kohl. 204.  
 — *intensus*. Nurse. 260.  
 — *nudus*. Nurse. 260.  
 — *pollux*. Nurse. 260.  
 — *projectus*. Nurse. 260.  
 — *puncticeps*. Cameron. 57.  
 — *redivivus*. Kohl. 204.  
 — *reiseri*. Kohl. 204.  
 — *spretus*. Kohl. 204.  
 — *striolata*. Cameron. 57.  
 — *varihirta*. Cameron. 57.

**TACHYTES** [Sphegidae].

- *diluara*. Nurse. 262.  
 — *flagellata*. Nurse. 260.  
 — *fulvipes*. Schrottky. 317.  
 — *hades*. Schrottky. 317.  
 — *minos*. Schrottky. 317.  
 — *proxima*. Nurse. 260.  
 — *shiva*. Nurse. 262.

**Tallium** n. gen. [Sphegidae].

- André. 4.  
**Taphanes** n. gen. [Ichneumonidae].

- Cameron. 65.  
 — *rufiventris*. Cameron. 65.

**TAPINOMA** [Formicidae].

- *andamanense*. Forel. 135.

**TAXONUS** [Tenthredinidae].

- *procinetus*. Konow. 217.

**TENTHREDO** [Tenthredinidae].

- *bigemmis*. Konow. 217.  
 — *microps*. Konow. 217.  
 — *prasina*. Konow. 217.  
 — *spinigera*. Konow. 217.

- TENTHREDOPSIS** [Tenthredinidae].  
 — *lijata*. Konow. 217.  
 — *prisinna*. Konow. 217.
- Tetraconus** n. gen. [Evaniidae].  
 — *Szepligeti*. 339.  
 — *mocsaryi*. Szepligeti. 339.
- TETRAMORIUM** [Formicidae].  
 — *belgaense*. Forel. 133.  
 — *christiei*. Forel. 133.  
 — *coonoreense*. Forel. 133.  
 — *emeryi*. Mayr. 239.  
 — *fergusoni*. Forel. 133.  
 — *inglebyi*. Forel. 133.  
 — *mixtum*. Forel. 133.  
 — *nursei*. Bingham. 28.  
 — *salvatum*. Forel. 133.  
 — *setigerum*. Mayr. 239.  
 — *simillimum*: *denticulatum*  
   n. subsp. Forel. 133.  
 — — *laetinode* n.  
   subsp. Forel. 133.  
 — *tortuorum* var. *bellii* n. var.  
   Forel. 133.  
 — *turneri*. Forel. 134.  
 — *wheeleri*. Wheeler. 371.
- THERONIA** [Ichneumonidae].  
 — *fultescens* var. *mellipennis*  
   n. var. Viereck. 347.
- TIPHIA** [Sphegidae].  
 — *exacta*. Nurse. 260.  
 — *odontogaster*. Viereck. 347.  
 — *rothmeyi*. Cameron. 59.
- TRAPEZIOBELTA** [Formicidae].  
 — *hollandi*. Forel. 132.
- TREMATOPYGUS** [Ichneumonidae].  
 — *laevithorax*. Strobl. 336.
- TRICHIOSOMA** [Tenthredinidae].  
 — *arctica*. Konow. 217.  
 — *sericea*. Konow. 217.
- TRICHOMMA** [Ichneumonidae].  
 — *bituberculatum*. Schmiedek-  
   necht. 315.
- TRIEPEOLUS** [Anthophila].  
 — *minimus*. Robertson. 285.
- TRIGLYPHOTHRIX** [Formicidae].  
 — *decamera*. Forel. 133.  
 — *microps*. Mayr. 239.  
 — *musculus*. Forel. 133.
- TRIGONA** [Anthophila].  
 — *longicollis*. Friese. 158.  
 — *longicornis*. Friese. 158.
- TRIGONODERUS** [Thalacididae].  
 — *varipes*. Viereck. 347.
- Trissodontaspis** n. gen. [Cynipidae].  
 — Ashmead. 13.
- Tropideucolla** n. gen. [Cynipidae]. Ash-  
 — mead. 13.
- TRYPETES** [Anthophila].  
 — *barbatus*. Robertson. 287.
- TRYPHON** [Ichneumonidae].  
 — *bidentatus*. Strobl. 336.  
 — *genalis*. Strobl. 336.
- TRYPOXYLON** [Sphegidae].  
 — *mediator*. Nurse. 262.  
 — *responsum*. Nurse. 260.
- Tyanites** n. gen. [Ichneumonidae].  
 — Cameron. 63.  
 — *rufipes*. Cameron. 63.
- Ulesta** n. gen. [Ichneumonidae].  
 — Cameron. 60.  
 — *varicornis*. Cameron. 60.
- Vabsaris** n. gen. [Ichneumonidae].  
 — Cameron. 63.  
 — *forticornis*. Cameron. 63.
- VESPA** [Vespidae].  
 — *flavo-fasciata*. Cameron. 66.  
 — *micalo*. Cameron. 66.  
 — *tridentata*. Cameron. 66.  
 — *xanthoptera*. Cameron. 66.
- VOLLENHOVIA** [Formicidae].  
 — *rufiventris*. Forel. 130.
- Whympertia** n. gen. [Ichneumonidae].  
 — Cameron. 63.  
 — *carinifrons*. Cameron. 63.
- XANTHOJOPPA** [Ichneumonidae].  
 — *crassispina*. Cameron. 59.  
 — *femorata*. Cameron. 60.  
 — *geniculata*. Cameron. 60.  
 — *nigrolineata*. Cameron. 59.
- Xanthosarus** n. gen. [Anthophila].  
 — Robertson. 287.
- Xanthosmia** n. gen. [Anthophila].  
 — Robertson. 287.
- XENOGLLOSSA** [Anthophila].  
 — *angelica*. Cockerell. 76.
- XENOGLLOSSODES** [Anthophila].  
 — *excurrans*. Cockerell. 81.
- XESTOLOPPA** [Ichneumonidae].  
 — *bilinenta*. Cameron. 60.  
 — *maculiceps*. Cameron. 60.
- XIPHIDRIA** [Siricidae].  
 — *buyssoni*. Konow. 211.
- XORIDES** [Ichneumonidae].  
 — *opacus*. Kokujev. 207.
- XYLOCOPA** [Anthophila].  
 — *absurdipes*. Enderlein. 115.  
 — *aurantiaca*. Friese. 153.  
 — *bangkæensis*. Friese. 153.



- XYLOCOPA** [Anthophila].  
 — *limaculata*. Friese. 153.  
 — *burmeisteri*. Friese. 153.  
 — *cafrariae*. Enderlein. 115.  
 — *eburnea*. Friese. 153.  
 — *erlangeri*. Enderlein. 115.  
 — *fimbriatopilosa*. Enderlein. 115.  
 — *grubaueri*. Friese. 153.  
 — *konowi*. Friese. 153.  
 — *kühni*. Friese. 153.  
 — *lehmanni*. Friese. 153.  
 — *lepelletieri*. Enderlein. 115.  
 — *longispinosa*. Enderlein. 115.  
 — *montana*. Enderlein. 115.  
 — *nyassica*. Enderlein. 115.  
 — *preussi*. Enderlein. 115.  
 — *schoana*. Enderlein. 115.  
 — *thoracica*. Friese. 153.  
 — *togoensis*. Enderlein. 115.  
 — *tumida*. Friese. 153.  
 — *vittata*. Enderlein. 115.  
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 — *slossonae* (nom. nud.). Ashmead. 328.  
**XYLONOMUS** [Ichneumonidae].  
 — *jakovlevi*. Kokujev. 207.  
**Zaeuocola** n. gen. [Cynipidae]. Ashmead. 13.  
**Zamischus** n. gen. [Cynipidae]. Ashmead. 13.  
**ZAPORUS** [Ichneumonidae].  
 — *minutus* (nom. nud.). Ashmead. 329.  
**ZARCA** [Tenthredinidae].  
 — *picipes*. Konow. 212.  
 — *thoracica*. Konow. 212.  
**ZEUXEVANIA** [Evaniidae].  
 — *globiceps*. Enderlein. 114.  
 — *tenuistilus*. Enderlein. 114.  
**ZOOTREPES** [Ichneumonidae].  
 — *bicoloripes* (nom. nud.). Ashmead. 329.

## 4803-4831 COLEOPTERA [INCL. STREPSIPTERA.]

### TITLES.

Alluaud, Ch. Observations sur divers Cicindélides de Madagascar et description d'espèces nouvelles. Paris, Ann. soc. ent., 71, (2<sup>e</sup> semest.), 1902, (637-642, av. fig.). [4827 fh 4831]. 1

Arrow, Gilbert J. Descriptions of a few new species of Coleoptera from Sapucay, Paraguay. London, Proc. Zool. Soc., 1903, 2, (255-258). [4827 hi 4831]. 2

——— On the Loporostict Lamellicorn Coleoptera of Grenada and St. Vincent (W. Indies). London, Trans. Ent. Soc., 1903, (500-520). [4827 hi 4831]. 3

——— On the affinities and nomenclature of certain genera of Melolonthid and Rutelid Coleoptera. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (303-306). [4831]. 4

——— v. Gahan, C. J.

Auzoux. Observations sur une apparition de Cantharides. Elbeuf. Bul. soc. étud. sci. nat., 20, 1901, [1902], (42-43). [4819 4831]. 5

Baeckmann, Jul. J. Note supplémentaire sur la description de la *Grammoptera ingrica* Baeckm. et de sa distribution géographique (*Cerambycidae*). (Russ.) St. Petersburg, Ann. Mus. Zool. Ac. Sc., 8, 1903, (VIII-X). [4831]. 6

——— Ueber Coleoptera, welche auf dem Gute Ploskoje im Kreise Luga gesammelt wurden und die neu oder interessant für die St. Peterburger Käferfauna sind. (Russ.) St. Petersburg. Hor. Soc. Ent. Ross., 36, 1903, (CXXIII-CXXVII). [4827 db]. 7

——— *Malachius rubidus* Er. seine Varietäten und sein Verbreitungsgebiet. Rev. Russ. Ent., Jaroslavl, 3, 1903, (92-93, mit 1 Fig.). [4831]. 8

——— Eine neue *Pidonina* Serv. aus dem Amur-Gebiet (*Cerambycidae*). Rev. Russ. Ent., Jaroslavl, 3, 1903, (115-116). [4831]. 9

——— Eine neue *Tetrops*-Art vom Issyk-Kul-See. Rev. Russ. Ent., Jaroslavl, 3, 1903, (311-312). [4831]. 10

——— Die palaearktischen Vertreter der Gattung *Anaethetis* Mulsant. Rev. Russ. Ent., Jaroslavl, 3, 1903, (393-396). [4831]. 11

Barber, H. G. *Miscodera arctica* Payk [from Mt. Kteadon, Me.]. Philadelphia, Pa., Ent. News Acad. Nat. Sci. 14, 1903, (241). [4827 gy 4831]. 12

**Barbey**, Auguste. Ravages des bostiches dans les vergers de la vallée du Rhône. Journ. Soc. Agricult. Suisse Rom., Lausanne, **43**, 1902, (139-157, 163-179, 2 pls.). [4819 4831]. 13

**Barnard**, T. G. A. Excursion to Launching Place [Victoria]. [14 species]. Vict. Nat., Melbourne, **19**, 1903, (147-148). [2227 if 2231 2627 if 2631 4827 if 4831]. 14

**Belon**. Le genre *Cortilana* Motsch, (*Lathridiidae*) et synopse de toutes les espèces actuellement connues. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (86-89). [4831]. 15

— Petite contribution à la connaissance des longicornes du Congo. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (246-247). [4831 4827 je]. 16

— Description de trois longicornes brésiliens du genre *Ectenessa* Bates. Bruxelles, Ann. Soc. ent. Belgique, **46**, 1902, (13-15). [4831]. 17

— Description de plusieurs longicornes de Bolivie appartenant au genre *Adetus* le C. Bruxelles, Ann. Soc. ent. Belgique, **46**, 1902, (464-472). [4831]. 18

— Fascicule 4. Coleoptera clavicornia fam. *Lathridiidae*. In: Wytman. Genera insectorum, Bruxelles, 1902, (40, av. 1 pl.). fr. 9.60. [4831]. 19

**Bernhauer**, Max. Die Staphyliniden-Tribus *Leptochirina* nebst analytischen Bestimmungstabellen der Gattungen und Arten. D. ent. Zs., Berlin, **1903**, (113-160). [4831]. 20

— Beitrag zur Staphyliniden-fauna von Ostindien und den Sundainseln. Stettiner ent. Ztg., **64**, 1903, (21-36). [4827 eg 4831]. 21

— Zehnte Folge neuer Staphyliniden aus Europe. Wien, Verh. ZoolBot. Ges., **51**, 1901, (651-655). [4831]. 22

— Elfte Folge neuer Staphyliniden der paläarktischen Fauna, nebst Bemerkungen. Wien, Verh. ZoolBot. Ges., **52**, 1902, (695-705). [4807 4831]. 23

**Beutenmüller**, William. Notes on some beetles from the Black Mountains (North Carolina), with descriptions of new species. New York, N.Y., Bull. Amer. Mus. Nat. Hist., **19**, 1903, (511- (n 2-9053)

519, with 2 pls.). Separate. 24.5 cm. [4827 gh 4831]. 24

**Blackburn**, T. Further notes on Australian Coleoptera, with descriptions of new genera and species. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (91-182, 261-309). [4803 4827 ic 4831]. 25

**Boden**. Beschädigung der jungen Kiefern-kulturen durch wurzelbrütende Hylesinen im akademischen Lehrrevier Freienwalde a. O. Zs. Forstw., Berlin, **35**, 1903, (551-554). [4819 4831]. 27

**Boileau**, H. Note sur quelques Lucanides du musée de Bruxelles. Bruxelles, Mém. soc. entom. Belgique, **9**, 1903, (33-62). [4831]. 28

**Bordas**, L. L'appareil digestif des *Silphidae*. Paris, C.-R. Acad. sci., **137**, 1903, (344-346). [4807 4831]. 29

**Born**, Paul. Ueber *Carabus auronitens*: *cluniensis* nov. subsp. und andere Caraben, insbesondere *Monilis scheidleri* Panz. Insektenbörse, Leipzig, **20**, 1903, (51-52). [4831]. 30

— Eine neue Form von *Carabus adonis* Hampe. Insektenbörse, Leipzig, **20**, 1903, (98). [4831]. 31

— *Coptolabrus pustulifer*: *guerryi* nov. subsp. Insektenbörse, Leipzig, **20**, 1903, (124). [4831]. 32

— Ueber die Formen von *Carabus auronitens* Fabr. der Normandie und Bretagne. Insektenbörse, Leipzig, **20**, 1903, (172-173). [4831]. 33

— Ueber einige nordafrikanische Caraben. Insektenbörse, Leipzig, **20**, 1903, (203-204). [4827 fa 4831]. 34

— *Carabus violaceus provincialis* nov. subsp. Insektenbörse, Leipzig, **20**, 1903, (219-220). [4831]. 35

**Bouchard**, J. Insectes recueillis par M. le professeur Forster à Bornéo, Java et Sumatra (Palemang). Coléoptères carabiques. Paris, Ann. soc. ent., **72**, 1903, (169-176). [4827 eg 4831]. 36

— Contribution à l'étude des Carabiques de Sumatra. Paris, Ann. soc. ent., **72**, 1903, (177-180). [4827 eg 4831]. 37

**Boucconnet**, A. Description de quelques Bolbocerini nouveaux. Paris, Ann. soc. ent., **71**, (2<sup>e</sup> semest.), 1902, (581-587, av. 1 pl.). [4827 hf hh 4831]. 38

**Bourgeois, J.** Diagnoses de Lycides nouveaux ou peu connus (8<sup>e</sup> partie). Paris, Ann. soc. ent., **71**, (2<sup>e</sup> semest.), 1902, [1903], (737-750). [4831]. 39

**Bouakell, F.** *Aphodius sturmi* Harold: a British insect. Ent. Rec., London, **15**, 1903, (92). [4827 *ds* 4831]. 40

—— *Tetropium castaneum* L. A species of Longicorn Coleoptera now to Britain. Ent. Rec., London, **15**, 1903, (288). [4827 *de* 4831]. 41

**Bowditch, F. C.** Notes on Casey's revision of the American Coccinellidae. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (205-207). [4831]. 42

—— Collection notes (Coleoptera). 1902. [Massachusetts.] Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (45-47). [4827 *gg*]. 43

**Bradley, J. Chester.** [*Hydrobius tessellatus* Ziegl., at Roberts Chester co., Pa.]. Philadelphia, Pa. Ent. News Acad. Nat. Sci., **13**, 1902, (23). [4827 *gg* 4831]. 44

**Brauns, H.** *Cossyphodites* Brauns, n. gen. Cossiphodidarum Wasm. Wien, Ann. Nat. Hist. Hofmus., **16**, 1901, (91-94). [4831]. 45

**Breed, Robert S.** The changes which occur in the muscles of a beetle, *Thymalus marginicollis* Chev., during metamorphosis. Cambridge, Mass., Bull. Mus. Comp. Zool. Harvard Coll., **40**, 1903, (317-382, with pl.). (Cambridge, Mass., Cont. Zool. Lab. Mus. Comp. Zool. Harvard Coll., No. 145). Separate. 24.5 cm. [4815 4831]. 46

**Breit, Josef.** Eier Neuer Höhlen-Käfer aus Bosnien. Soc. Entomol., Zürich, **17**, 1902, (89). [4819 4827 *dk* 4831]. 47

—— *Cholera doderoi* n. sp. Soc. Entomol., Zürich, **17**, 1903, (169). [4827 *dh* 4831]. 48

**Brenske, E.** *Hapalopus* n. gen. Leptopodarum. Soc. Entomol., Zürich, **17**, 1903, (185). [4827 *fg* 4831]. 49

—— Neue Melolonthiden aus Usambara aus der Sammlung des Herrn Dr. Julius Schulz. D. ent. Zs., Berlin, **1903**, (295-299). [4827 *ff* 4831]. 50

—— Neue Arten der Melolonthiden-Gattung *Cyphochilus*. I. Insektenbörse, Leipzig, **20**, 1903, (380-381). [4831]. 51

**Brown, T.** Descriptions of new genera and species of New Zealand Coleoptera. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (450-458, 602-618); **12**, 1903, (69-86). [4827 *ih* 4831]. 53

**Brues, Charles Thomas.** Notes on some Californian myrmecophiles. [*Hetaerius tristriatus* Horn, and *Syrphid larva*]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (147-149, with fig. in text). [4231 4831]. 54

—— Two new Texan ant and termite guests [nn. spp. in *Ecitozenia* and *Termitogaster*]. "Contributions from the Zoological Laboratory of the University of Texas. No. 32." Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (184-188, with 1 pl.). [4827 *gi* 4831]. 55

—— A contribution to our knowledge of the *Stylopidae*. Zool. Jahrb., Jena, Abt. f. Anat., **18**, 1903, (241-270, mit 2 Taf.). [4815 4819 4831]. 56

**Burgess, A. F.** Economic notes on the family Coccinellidae. Washington, D.C., Bull. U. S. Dept. Agric., Div. Ent., No. **40**, 1903, (25-32). [4803 4831]. 57

**Cameron, M.** Coleoptera collected around Constantinople and Gulf of Ismid during the winter 1901-1902. Ent. Mag., London, **39**, 1903, (58-63). [4803 4827 *dl*]. 58

—— Description of a new European *Soronia*. Ent. Mag., London, **39**, 1903, (97-98). [4831]. 59

**Carret, A.** Notes relatives à l'étude de quelques *Pogonides*. Création d'un sous-genre. Description d'espèces et de variétés nouvelles. Echange, Lyon, **19**, 1903, (133-136, 137-138, 150-152). [4831]. 60

**Champion, G. C.** Some notes on the habits of *Nanophyes durieni* Lucas, as observed in Central Spain, with a description of the larva and pupa by Dr. T. A. Chapman. London, Trans. Ent. Soc., **1903**, (87-91, pl. V). [4819 4831]. 61

—— An entomological excursion to Bejar, Central Spain. London, Trans. Ent. Soc., **1903**, (165-182). [4027 *dg* 4827 *dg*]. 62

—— Coleoptera. Biol. Centr.-Amer., London, **1903**, IV, pt. 4, (145-312, pls. IX-XVI). [4827 *hb* 4831]. 63

**Chapman, T. A.** A contribution to the life history of *Orina* (*Chrysocloa*) *tristis* Fabr., var. *amaragdina* Weise. London, Trans. Ent. Soc., **1903**, (245-261, pls. X, XI). [4819 4831]. 64

**Chaster, G. W.** Two beetles from Roundstone, new to the Irish list. Irish Nat., Dublin, **12**, 1903, (167). [4827 *de* 4831]. 65

**Chatanay, J.** Orthographe du mot *Ceutorrhynchus*. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (204). [4831]. 66

——— Sur le *Carabus* (*Megodontus*) *violaceus*. Feuille jeunes natural., Paris, (sér. 4), **34**, 1903, (37). [4831 4807]. 67

**Chittenden, Frank H.** The palm and palmetto weevils. [*Rhynchophorus palmarum* and *R. cruentatus*.] Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **38**, 1902, (23-28). [4819 4831]. 68

——— Notes on the rhinoceros beetle (*Dynastes tityus* Linn.). Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **38**, 1902, (28-32, with pl.). [4831]. 69

——— The tobacco stalk weevil (*Trichobaris mucorea* Lee.). Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **38**, 1902, (66-70). [4819 4831]. 70

——— The leaf-mining locust beetle (*Odontota dorsalis*), with notes on related species. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **38**, 1902, (70-90). [4819 4831]. 71

——— Notes on the larger sugar-beet leaf-beetle (*Monoxia puncticollis* Say). Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., No. **40**, 1903, (111-113). [4819 4831]. 72

**Chitty, A. J.** *Hydroporus bilineatus* Sturm. An addition to the British list. Ent. Mag., London, **39**, 1903, (143). [4827 *de* 4831]. 73

**Cicérin, T.** Mémoire sur les Cicindélides des voyages de N. Zarudny dans la Perse orientale. St. Peterburg, Hor. Soc. Ent. Ross., **36**, 1903, (1-21). [4827 *ch* 4831]. 74

——— Les *Leistus* de l'intérieur de la Chine. St. Peterburg, Hor. Soc. Ent. Ross., **36**, 1903, (22-37). [4827 *eb* 4831]. 75

**Cicérin, T.** Nouvelles espèces de la tribu des *Platysmatini*. St. Peterburg, Hor. Soc. Ent. Ross., **36**, 1903, (33-64). [4831]. 76

——— Observations sur quelques Cicindélides de la collection Semenov. St. Peterburg, Hor. Soc. Ent. Ross., **36**, 1903, (90-107). [4827 *e* *db* 4831]. 77

——— Notice sur divers *Notiophilus* Dun. St. Peterburg, Hor. Soc. Ent. Ross., **36**, 1903, (108-117). [4831]. 78

——— *Chactodactylini* subtribus nova *Platysmatinorum*. St. Peterburg, Hor. Soc. Ent. Ross., **36**, 1903, (157-163). [4831]. 79

——— Nouvelle étude sur le genre *Eucamptognathus* Chaud. St. Peterburg, Hor. Soc. Ent. Ross., **36**, 1903, (201-230). [4831]. 80

——— Species transcaucasica nova generis *Platysma* (Bon.) Tsch. Rev. Russ. Ent., Jaroslavl', **3**, 1903, (24-25). [4827 *db* 4831]. 81

——— Zu Dr. K. Daniels kritischen Nachgraben. Rev. Russ. Ent., Jaroslavl', **3**, 1903, (39-40). [4831]. 82

——— Notice sur quelques noms de Carabides préoccupés. Rev. Russ. Ent., Jaroslavl', **3**, 1903, (40). [4831]. 83

——— Species nova generis *Penthaphonus* (Reitt. 1900) Tsch. 1901. Rev. Russ. Ent., Jaroslavl', **3**, 1903, (44-45). [4831]. 84

——— Species caucasica nova generis *Platysma* (Bon.) Tsch. Rev. Russ. Ent., Jaroslavl', **3**, 1903, (107-108). [4827 *db* 4831]. 85

——— Species asiatica nova generis *Leistus* Fröl. Rev. Russ. Ent., Jaroslavl', **3**, 1903, (109). [4831 4827 *e*]. 86

——— Ueber den Gattungsnamen *Platysma* (Bon.) Tsch. Rev. Russ. Ent., Jaroslavl', **3**, 1903, (218). [4831]. 87

——— Notice sur quelques *Amara* deserticoles (*Carabidae*). Rev. Russ. Ent., Jaroslavl', **3**, 1903, (219-222). [4831]. 88

——— Species tibetana nova generis *Platysma* (Bon.) Tsch. Rev. Russ. Ent., Jaroslavl', **3**, 1903, (223). [4827 *eb* 4831]. 89

**Clérin, T.** Species nova generis *Aristochroa* Tsch. Rev. Russ. Ent., Jaroslavl, 3, 1903, (224-225). [4831]. 90

— Eine neue *Platysma* Art aus Centralasien. Rev. Russ. Ent., Jaroslavl, 3, 1903, (226-227). [4827 eb 4831]. 91

— Sur un nom de *Carabidae* préoccupé. Rev. Russ. Ent., Jaroslavl, 3, 1903, (227). [4831]. 92

— Notice sur quelques Cicindélides. Rev. Russ. Ent., Jaroslavl, 3, 1903, (229). [4831]. 93

**Clermont, J. A.** Deux mots sur les mœurs d'*Apion pini* Fab. Echange, Lyon, 17, 1902, (83). [4819 4831]. 94

**Cockerell, T[hodore] D[ru] A[lison].** *Cassida nigripes* [on *Convolutus incanus*]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (207). [4831]. 95

**Conte, A. v. Vaney, C.**

**Cordley, A. B.** [Notes on injury to apple trees by *Xyleborus dispar*]. Agric. Exp. Sta., Oregon, Corvallis, Rep., 1902, (60-61). [4819 4831]. 96

**Coulon, L.** Muséum d'Histoire naturelle d'Elbeuf. Catalogue de la collection de coléoptères longicornes d'Europe. Elbeuf, Bul. soc. étud. sci. nat., 20, 1901, [1902], (pagin. spéc. 1-11). [4803 4831]. 97

**Crawahay, L. R.** On the life history of *Drilus flavesceus* Rossi. London, Trans. Ent. Soc., 1903, (39-52, pls.). [4819 4815 4831]. 98

**Osiki, Ernő.** Coleoptera nova ex Hungaria. Budapest. Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (441-446). [4827 dk 4831]. 99

— Die Histeriden Ungarns. (Hung.). Állat. Közlem., Budapest, 2, 1903, (220-232). [4827 dk 4831]. 100

— Die Cicindeliden Ungarns. Math.-natw. Ber. Ungarn, Leipzig, 18, (1900), 1903, (121-144). [4827 dk 4831]. 101

**Czeraski, Stanisław.** Nouvelles recherches sur la myrmécophilie. (Polonais). Wszzechświat, Warszawa, 22, 1903, (308-311). [4619 4819]. 102

**Dahl, Friedr.** Täuschende Aehnlichkeit zwischen einer deutschen Springspinne (*Ballus depressus*) und einem am gleichen Orte vorkommenden Rüsselkäfer (*Strophosomus capitatus*). Berlin,

SitzBer. Ges. natf. Freunde, 1903, (273-278). [3019 3031 4819 4831]. 103

**Darbour, Gaston et Mingaud, Galien.** Les deux formes larvaires de *Laria oblecta* Say. Nîmes, Bul. soc. étud. sci. nat., (n. sér.), 29, 1901, [1902], (25-29). [4815 4831]. 104

**Dauphin, L. C.** Réponse à M. J. A. Clermont. Echange, Lyon, 19, 1903, (93-95). [4831 4819]. 105

**Davis, C. Abbott.** The *Cicindelidae* of Rhode Island. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (270-273). [4827 gg 4831]. 106

**Desbrochers des Loges.** Description d'un Curculionide nouveau formant une coupe générique nouvelle. Echange, Lyon, 19, 1903, (188). [4831 4827 ja]. 107

**Dierckx, F.** Les glandes pygidiennes des coléoptères. Carabides (bombardiers, etc.), Paussides, Cicindélides, Staphylinides. Second memoire. Louvain (A. Uystpruyt), Lierre (J. Van In et Cie), 1901, (58, av. 3 pls. hors texte). 40, 10 fr. [4811]. 108

**Donisthorpe.** Oviposition in *Labidostomes tridentata*. Ent. Mag., London, 39, 1903, (205). [4819]. 109

— [Myrmecophilous Coleoptera.] Ent. Rec., London, 15, 1903, (11-12). [4831 4819]. 110

**Aphanisticus emarginatus** F.: a species of Coleoptera new to Britain. Ent. Rec., London, 15, 1903, (265). [4827 de 4831]. 111

— *Seymus limonii* n. sp. A species new to science. Ent. Rec., London, 15, 1903, (287). [4831]. 112

— Coleoptera in South Kerry. Irish Nat., Dublin, 12, 1903, (69). [4827 de]. 113

**Du Buysson, H.** *Apate capucina* L. Feuille jeunes natural., Paris, (sér. 4), 34, (19). [4831 4819]. 114

**Dufour, J.** Pyrale et gribouri (*Eumolpe*). Chron. Agric., Lausanne, 15, 1902, (459-462, av. 2 figs.). [4419 4819]. 114a

**Dupont, L.** Insectes du Jardin (Mont-Blanc). Elbeuf, Bul. soc. étud. sci. nat., 20, 1901, [1902], (41). [4427 df di 4431 4827 df di 4831]. 115

**Dury, Chas.** Note on *Galeruca* [possible identity of *G. externa* and *G. tanacetii*]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (146). [4831]. 116

**Edwards, J.** On the occurrence in Norfolk of *Ordemera virescens* Linn., a species not hitherto recorded as British. Ent. Mag., London, **39**, 1903, (64-65). [4827 de 4831]. 117

**Ehrman, George A.** Notes on Coleoptera No. 2. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (140-141). [4831]. 118

**Eichelbaum, F.** Die Larven von *Xylechinus pilosus* Rtzbg. und von *Hylastes cunicularius* Er. Allg. Zs. Ent., Neudamm, **8**, 1903, (60-70). [4815 4831]. 119

——— Larve und Puppe von *Omosita colon* L. Allg. Zs. Ent., Neudamm, **8**, 1903, (81-87). [4815 4831]. 120

**Ellis, H. W.** *Criocephalus polonicus* Motsch. A genus and species of Longicorn Coleoptera new to Britain. Ent. Rec., London, **15**, 1903, (259-261). [4827 de 4831]. 121

**Engelhardt, Chr.** The Danish species of the genus *Apion* Herbst. (Danish) Kjöbenhavn, Ent. Medd., (Ser. 2), **2**, 1903, (115-179). [4827 da 4831]. 122

**Enock, F.** The life history of *Cicindela campestris*. London, Proc. ent. Soc., **1903**, (XV-XIX). [4819 4831]. 123

**Evans, W.** Some more records of Coleoptera taken in Scotland chiefly in the Edinburgh and Forth district. Ann. Scot. Nat. Hist., Edinburgh, **1903**, (89-99). [4827 de 4803]. 124

**Everts, Ed.** Die Käfer von Niederland und dem angrenzenden Gebiete. (Holländisch) Vol. 2, Lief. 2. 's Gravenhage (Mart. Nijhoff), 1903, (401-796, 8 Taf.). 27 cm. [4827 dl 4831]. 125

**Faes, H[enri].** Pluie de chenilles. [Larves de Téléphores.] Arch. Sci. Phys., Genève, (sér. 4), **16**, 1903, (239). [4819 4831]. 126

**Fairmaire, L.** Matériaux pour la faune coléoptérique de la région malgache (14<sup>e</sup> Note). Paris, Ann. soc. ent., **71**, (2<sup>e</sup> semest.), 1902, (532-568). [4827 fh 4831]. 127

——— Matériaux pour la faune coléoptérique de la région malgache (16<sup>e</sup> Note). Paris, Ann. soc. ent., **72**, (2<sup>e</sup> semest.), 1903, (181-259). [4827 fh 4831]. 128

**Fairmaire, L.** Descriptions de quelques longicornes du Mexique. Paris, Bul. soc. ent., **1902**, (243-246). [4827 ha 4831]. 129

——— Description de coléoptères nouveaux de Madagascar. Naturaliste, Paris, (sér. 2), **23**, 1903, (9-11, 35-37). [4827 fh 4831]. 130

——— Description de coléoptères de Madagascar. Naturaliste, Paris, (sér. 2), **24**, 1902, (286-287). [4827 fh 4831]. 131

——— Matériaux pour la faune coléoptérique de la région malgache. *Curculionidae*. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (209-244). [4827 fh 4831]. 132

——— Description de quelques Hétéromères recueillis par M. Fruhstorfer dans le Haut-Tonkin. Bruxelles, Ann. Soc. ent. Belgique, **47**, 1903, (13-20). [4827 ed 4831]. 133

**Fenyer, A.** *Palaeoxenus (Cryptostoma) dohrnii* Horn. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (220). [4831]. 134

**Fernald, H[enry] T[orrey].** The imported elm-leaf beetle [*Galerucella luteola*]. Agric. Exp. Sta., Massachusetts, Amherst, Bull. No. **78**, 1901, (8, with 1 fig.). 23 cm. [Review], Washington, D.C., U. S. Dept. Agric. Off. Exp., Sta. Rec., **13**, 1902, (575). [4819 4831]. 135

**Fletcher, James.** Can the pea-weevil [*Bruchus pisi*] be exterminated? Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., No. **40**, 1903, (69-74). [4803 4831]. 136

**Fleutiaux, Ed.** Contribution à la faune indochinoise (Indo-Chine française). (18<sup>e</sup> Mémoire). Deuxième addition aux *Cicindelidae* et *Elatéridae*. Paris, Ann. soc. ent., **71**, (2<sup>e</sup> semest.), 1903, (569-580). [4827 ed 4831]. 137

——— Description de deux nouvelles espèces d'Elatérides de Madagascar. Naturaliste, Paris, (sér. 2), **25**, 1903, (45). [4827 fh 4831]. 138

**Florentin, R.** Sur le *Megodontus violaceus*. Feuille jeunes natural., Paris, (sér. 4), **34**, 1903, (18). [4831 4807]. 139

**Forel, F[rançois] A[lphonse].** Pluie de chenilles. Lausanne, Bul. Soc. Sci.

Nat., (sér. 4), **39**, 1903, (XXXIX-XI.); Arch. Sci. Phys., Genève, (sér. 4), **16**, 1903, (347-348). [4819 4831]. 140

**Friedrichs**, K. Beiträge über paläarktische Coleopteren. Allg. Zs. Ent., Neudamm, **8**, 1903, (87-90, 257-261). [4831]. 141

**Froggatt**, Walter W. Some wood-boring beetles and their habits. Agric. Gaz., Sydney, N.S.W., **14**, 1903, (414-417, with 1 pl.). [4819]. 142

**Fuchs**, Léon. A propos de *Ceutorhynchus*, *Ceutorrhynchus*, etc. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (224-225). [4831]. 143

**Gahan**, C. J. Coleoptera. Nat. Hist. Sokotra, (263-292, pl.). [4827 ff 4831]. 144

— and **Arrow**, G. J. List of the Coleoptera collected by Mr. A. Robert at Chapada, Matto Grosso (Percy Sladen expedition to Central Brazil), [An appendix by Arrow includes 4 nn. spp. from Paraguay.] London, Proc. Zool. Soc., **1903**, 2, (244-256, pl. XXVIII). [4827 hh 4131]. 145

**Ganglbauer**, L. Bemerkungen zu Prof. H. J. Kolbe's Arbeit „Zur Systematik der Coleopteren“. Allg. Zs. Ent., Neudamm, **8**, 1903, (268-269). [4831]. 146

— Beiträge zur Kenntnis der paläarktischen Hydrophiliden. Wien, Verh. ZoolBot. Ges., **51**, 1901, (312-332). [4831]. 147

— Der Artenumfang in der *Orinoearabus*-gruppe und nomenclatorische Vorschläge. Wien, Verh. ZoolBot. Ges., **51**, 1901, (791-798). [4831]. 148

**Gerhardt**, J. Neuheiten der schlesischen Käferfauna aus dem Jahre 1902. D. ent. Zs., Berlin, **1903**, (237). [4827 de]. 149

— *Enicmus anthracinus* Mnh. sp. pr. D. ent. Zs., Berlin, **1903**, (238-239). [4831]. 150

— *Aeritis nigricornis* E. H. D. ent. Zs., Berlin, **1903**, (239-240). [4831]. 151

**Giard**, A. *Bradycellus distinctus*. [Réponse partielle à la question de M. F. Picard]. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (84). [4819 4827 df 4831]. 152

**Giard**, A. *Sympiezocera laurasi* Lucas. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (203). [4819 4827 4831]. 153

— Les glandes pygidiales des Carabides. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (222). [4807 4831]. 154

— Une altise nuisible aux semis de betteraves (*Chaetochma tibialis* Illig.). Feuille jeunes natural., Paris, (sér. 4), **34**, 1903, (13-14). [4831 4819]. 155

**Giraudeau**, H. *Apate capucina*. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (223). [4819 4831]. 156

**Godon**, J. *Lytta vesicatoria* Linn. Feuille jeunes natural., Paris, (sér. 4), **38**, 1903, (50). [4819 4831]. 157

**Gorham**, H. S. Fam. *Cleridae*. Four new *Pelonia* from Brazil. D. ent. Zs., Berlin, **1903**, (169-171). [4831]. 158

**Grosser**, Franz Joseph. Nachtrag zum Verzeichnis der in Württemberg aufgefundenen Käfer. Stuttgart, Jahreshefte Ver. Natk., **59**, 1903, (325-327). [4827 de]. 159

**Grouvelle**, A. Supplément à la liste des coléoptères de la Guadeloupe de MM. Fleutiaux et Sallé. Paris, Ann. soc. ent., **71**, (2<sup>e</sup> semest.), 1902, [1903], (756-769). [4827 hc 4831]. 160

— Clavicornes de l'Inde septentrionale récoltés par M. Harmand. (*Nitidulidae*, *Colydiidae*, *Cucujidae*, *Monotomidae*, *Dryopidae*). Paris, Ann. soc. ent., **72**, 1903, (108-124). [4827 ef 4831]. 161

— Coléoptères de l'Inde récoltés par MM. H. L. Andrewes et T. R. D. Bell. Paris, Ann. soc. ent., **72**, 1903, (125-127). [4827 ef 4831]. 162

— Voyage de M. Maurice Maindron dans l'Inde méridionale (mai-novembre 1901). 2<sup>e</sup> Mémoire. Coléoptères clavicornes. Paris, Ann. soc. ent., **72**, (2<sup>e</sup> semest.), 1903, (340-347, av. fig.). [4827 ef 4831]. 163

— Clavicornes nouveaux du musée royal de Bruxelles (Afrique et Australie). Bruxelles, Ann. Soc. ent., Belgique, **45**, 1902, (184-190). [4831]. 164

**Guignon**, J. Orthographe du mot *Ceutorrhynchus*. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (204-205). [4831]. 165

**Hartmann, F.** Vier neue Arten der Gattung *Niphades* Pasc. D. ent. Zs., Berlin, **1903**, (109-112). [4831]. 166

**Heath, E. A.** Description of a new Cetoniid beetle from British East Africa. Entomologist, London, **56**, 1903, (98). [4827 ff 4831]. 167

——— Description of a new Longicorn beetle from British East Africa. Entomologist, London, **36**, 1903, (273). [4827 ff 4831]. 168

**Held.** (Feind der Obstbäume. Prachtkäfer.) Schweiz. Bauer, Bern, **56**, 1902, No. 76, (5). [4819]. 169

**Heller, K. M.** Eine neue Art der Cetoniden-Gattung *Bothrorrhina* aus Madagascar. D. ent. Zs., Berlin, **1903**, (167-168). [4827 fh 4831]. 170

——— Sechs neue Käfer aus Deutsch Neu-Guinea. D. ent. Zs., Berlin, **1903**, (305-317). [4827 ia 4831]. 171

——— Dritter Beitrag zur Papuanischen Käferfauna. Dresden, Abh. zool. Mus., **10**, (1902-03), Berlin, 1903, Nr. 2, (II + 20). [4827 ia 4831]. 172

——— Un buprestide nouveau de la Nouvelle-Guinée allemande, *Iritotaenia rahnesi*. Bruxelles, Ann. Soc. ent. Belgique, **46**, 1902, (231-235). [4831 4827 ia]. 173

**Heydenreich, E.** Ueber einige seltenere Käfer Schlesiens. Insektenbörse, Leipzig, **20**, 1903, (29). [4827 de]. 174

**Holdhaus, Karl.** Ergebnisse einer coleopterologischen Reise in den Kärntner Alpen im Sommer 1900. Carinthia II, Klagenfurt, **91**, 1901, (11-19). [4827 dk]. 175

——— und **Prossen, Theodor.** Verzeichnis der bisher in Kärnten beobachteten Käfer. (Fortsetzung). Zusammengestellt von Th. Prossen. Carinthia II, Klagenfurt, **91**, 1901, (56-63, 92-106, 164-172, 199-217). [4827 dk]. 176

——— Verzeichnis der bisher in Kärnten beobachteten Käfer. (Fortsetzung, zusammengestellt von Karl Holdhaus.) Carinthia II, Klagenfurt, **92**, 1902, (158-177). [4827 dk]. 177

**Holtz, Martin.** Laufkäfer und Skorpiene. Insektenbörse, Leipzig, **20**, 1903, (339). [4819 4831]. 178

**Hood, L. E.** Notes on certain Coleoptera [collecting in Massachusetts]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (83-84). [4827 gg]. 179

——— Notes on *Cicindela hentzii*. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (116-118). [4831]. 180

**Hopkins, [Andrew Delmar].** [Preliminary notice of *Phloeosinus cupressi* n. sp. Ms]. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (135-136). [4831]. 181

——— Insect enemies of the pine in the Black Hills forest reserve. An account of results of special investigations, with recommendations for preventing losses [new *Dendroctonus* and *Tomicus*]. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **32**, 1902, (24 with pl.). 23 cm. [2419 4831]. 182

**Hormusaki, Const[antin] Freil[err]** v[on]. Neue Coleopterenfunde aus der Bukowina. Wien, Verh. ZoolBot. Ges., **51**, 1901, (356-361). [4827 dk]. 183

**Horn, Walther.** On the *Cicindelidae* of southern Venezuela, collected by Edward A. Klages 1898-1900. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (331-334). [4827 hl 4831]. 184

——— List of the *Cicindelidae* of Mexico and on their relationship with the species of the United States. New York, N.Y., J. Ent. Soc., **11**, 1903, (213-221). [4827 ha 4831]. 185

——— Briefe eines reisenden Entomologen. III. D. ent. Zs., Berlin, **1903**, (177-198). [4831]. 186

——— Ueber die Cicindeliden-Ausbeute von Guy A. K. Marshall aus Rhodesia, Manica und Gazaland. D. ent. Zs., Berlin, **1903**, (315-317). [4827 fg 4831]. 187

——— Neue süd-afrikanische Cicindeliden. D. ent. Zs., Berlin, **1903**, (318-320). [4827 fg 4831]. 188

——— 3 neue Cicindeliden vom tropischen Ost-Afrika. 2 neue abessinische Cicindeliden. Eine neue Borneo-Cicindelide. D. ent. Zs., Berlin, **1903**, (421-423). [4827 ff 4831]. 189

——— Contribution à l'étude de la faune entomologique de Sumatra. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (84-85). [4831 4827 eg]. 190

**Houghton, C. O. v. Mac Gillivray, A.**



**Iohes**, Lucien. Un insecte géomètre. *Rhynchites betulæ*. Extrait d'un travail de Hermann Muckermann dans Scientific American]. Nature, Paris, **30**, (2<sup>e</sup> sem.), 1902, (180-183, av. fig.). [4831 4819]. 191

**Imhof**, O. Le nombre des coléoptères de la Suisse. Arch. Sci. Phys., Genève, (sér. 4), **16**, 1903, (585). [4827 di 4803]. 192

**Jacobson**, G. G. Coleoptera Mandshuriae meridionalis et peninsulae Quantungensis, ab A. N. Gudzenko allatu. (Russ.) St. Petersburg, Ann. Mus. Zool. Ac. Sc., **8**, 1903, (XI-XVI). [4827 eb ea 4831]. 195

Localités de quelques coléoptères présentant un certain intérêt II. (Russ.) St. Petersburg, Ann. Mus. Zool. Ac. Sc., **8**, 1903, (XXII-XXIV). [4827 db ea]. 196

Interessante Neuheiten für die St. Peterburger Coleopteren-fauna. II, III. (Russ.) St. Petersburg, Hor. Soc. Ent. Ross., **36**, 1903, (CXVIII-CXIX, CXXI-CXXIII). [4827 db]. 197

**Jacoby**, M. Descriptions of new species of South-American Coleoptera of the family *Chrysomelidae*. London, Proc. Zool. Soc., **1903**, 2, (30-59). [4827 h 4831]. 198

A further contribution to our knowledge of African phytophagous Coleoptera. Pt. II. London, Trans. Ent. Soc., **1903**, (1-38). [4827 f 4831]. 199

Descriptions of some new species of *Clythridae* (phytophagous Coleoptera). Entomologist, London, **36**, 1903, (62-64, 91-93). [4831]. 200

Descriptions of some new species and a new genus of *Chrysomelidae* from South America. Entomologist, London, **36**, 1903, (169, 170, 182, 183, 290-211). [4827 h 4831]. 201

Descriptions of some new genera and species of phytophagous Coleoptera from Madagascar. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (287-303). [4831 4827 fh]. 202

Descriptions of new genera and species of phytophagous Coleoptera. Bruxelles, Ann. Soc. ent. Belgique, **47**, 1903, (80-128). [4831]. 203

**Jacoby**, M. Coleoptera phytophaga sect. Eupoda fam. *Sagridar*. Bruxelles In: Wytzman, P. Genera Insectorum, Bruxelles, 1903, (11, et 1 pl. hors texte. 40 fr. 95. [4831]. 204

Descriptions of new genera and species of phytophagous Coleoptera obtained by Herr Conradt in West-Africa (Cameroons). Stettiner ent. Ztg. **64**, 1903, (292-336). [4827 fd 4831]. 205

**Jakovlev**, V. E. Revision des *Sphenoptera* de la région éthiopienne. Supplement. St. Petersburg, Hor. Soc. Ent. Ross., **36**, 1903, (231-239). [4827 f 4831]. 207

Etude sur les *Sphenoptera* paléarctiques du sous-genre *Chrysoblemma* V. Jak. St. Petersburg, Hor. Soc. Ent. Ross., **36**, 1903, (248-277). [4831]. 208

Un nouveau *Pentodon* de la Transcaucasie. Rev. Russ. Ent., Jaroslavl, **3**, 1903, (17-18). [4831 4827 db]. 209

Notes coléoptérologiques. III, IV. Rev. Russ. Ent., Jaroslavl, **3**, 1903, (33-35, 215-216). [4831]. 210

Notices sur diverses espèces du genre *Pentodon* Hope. I. (Russ.) Rev. Russ. Ent., Jaroslavl, **3**, 1903, (304-305). [4831]. 212

Description d'une nouvelle *Sphenoptera* de la Transcaucasie. Rev. Russ. Ent., Jaroslavl, **3**, 1903, (386-387). [4831]. 213

**Janson**, O. E. On the genus *Theodosia* and other eastern *Goliathides*, with descriptions of some new species. London, Trans. Ent. Soc., **1903**, (303-310). [4827 4831]. 214

*Pentaphyllus testaceus* Hellwig, an unrecorded addition to the British Coleoptera. Ent. Rec., London, **15**, 1903, (128). [4827 de 4831]. 215

**Jensen-Haarup**, A. C. The smallest beetles. (Danish) Bergen, Naturen, **27**, 1903, (49-53, with fig.). [4831]. 216

**Johansen**, Joh. P. On the discovery of some Coleoptera new to Denmark and of some new but rare species. (Danish) Kjöbenhavn, Ent. Medd., (Ser. 2), **2**, 1903, (180-187). [4827 da]. 216

**Jordan, K.** Some new African *Anthribidae*. Nov. Zool., Tring, **10**, 1903, (127-130). [4827 f 4831]. 217

— African *Cerambycidae*. Nov. Zool., Tring, **10**, 1903, (131-191). [4827 f 4831]. 218

— Some new *Cerambycidae* collected by Albert Mocquers on the island of St. Thomé, Gulf of Guinea, W. Africa. Nov. Zool., Tring, **10**, 1903, (192-195). [4827 fd 4831]. 219

— New oriental *Anthribidae*. Nov. Zool., Tring, **10**, 1903, (415-434). [4827 eg 4831]. 220

**Joutel, Louis H.** A new species of *Superda*. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (33-34, with pl.). [4831]. 221

**Kerremans, C.** Considérations sur les Buprestides. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (165-173). [4819]. 222

— Fasc. 12—Coleoptera serri-cornia fam. *Buprestidae*. [1<sup>e</sup> partie] In: Wytsman, P. Genera insectorum. Bruxelles, 1902, (48) fr. 9.60. 2<sup>e</sup> et 3<sup>e</sup> parties. Ib. (49-240). [4803 4831]. 223

— Neue oder wenig bekannte Buprestiden des naturhistorischen Museums zu Hamburg. Hamburg, Jahrb. wiss. Anst., **19**, (1901), Beih. 2, 1903, (55-61). [4831]. 224

**Keys, Black variety of *Carabus nemoralis***. Ent. Mag., London, **39**, 1903, (174). [4823 4831]. 225

**Keys, J. H.** Some northern and hill-country Coleoptera of the Plymouth district. Plymouth, Rep. Inst., **13**, 1903, (239-245). [4827 de]. 226

**Klages, Henry G.** Supplement to Dr. John Hamilton's list of the Coleoptera of southwestern Pennsylvania. [*Scydmaenidae* and *Pselaphidae* by Rev. Jerome Schmitt]. Pittsburg, Pa., Ann. Carnegie Mus., **1**, 1901, (265-294). [4827 gg 4831]. 227

**Klimsch, Edgar.** Die Käfer des oberen Metnitzales. Carinthia II, Klagenfurt, **93**, 1903, (67-86). [4827 dk]. 228

**Knab, Frederick.** Beetle prizes at Springfield, Mass. [with notes on Massachusetts beetles]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (89-90). [4827 gg]. 229

**Knaus, W.** Notes on collecting Coleoptera in Wyoming and Utah. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (114-115, 147-152). [4827 gi]. 230

— The Coleoptera of the Sacramento Mountains of New Mexico. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (172-180). [4827 gi]. 231

— Additions to the list of Kansas coleoptera for the year 1901 and 1902. Topeka, Trans. Kan. Acad. Sci., **18**, 1903, (187-190). [4827 gi 4831]. 232

**Kolbe, H. J.** Einige Mittheilungen zur Morphologie und Systematik der Chiroscelinen. Arch. Natg., Berlin, **69**, Bd 1, 1903, (161-180). [4831]. 233

— Zur Systematik der Coleopteren. Allg. Zs. Ent., Neudamm, **8**, 1903, (137-145). [4831]. 234

— Die Elytren der Coleopteren, speziell die Elytren in der Gattung *Tefflus*. Berlin, SitzBer. Ges. natf. Freunde, **1903**, (225-237). [4831 4807]. 235

— Myrmekophile Insekten, speciell *Thorictus foreli* Wasm. Berlin, SitzBer. Ges. natf. Freunde, **1903**, (237-253). [4831 4819 4619]. 236

— Ueber den einseitigen Polymorphismus im männlichen Geschlecht der Lucaniden. Ein kurzer Entwurf. Insektenbörse, Leipzig, **20**, 1903, (43-45). [4823 4831]. 237

**Kraatz, G.** Nekrolog [F. A. Clemens Müller]. D. ent. Zs., Berlin, **1903**, (173-174, mit Portr.). [0010 4803]. 238

— v. Küster, H. C.

**Küster, H. C. und Kraatz, G.** Die Käfer Europas. Nach der Natur beschrieben. Fortgesetzt von J. Schilsky. H. 40. Nürnberg (Bauer & Raspe), 1903, (VIII + 270). 15 cm. 3 M. [4803 4831]. 239

**Kulwiec Kazimierz.** Parasites des insectes. (Polonais) Wzzechświat, Warszawa, **22**, 1903, (213-217, 246 249). [4619 4819 1419 3019]. 240

**Kunstler, J.** Observations sur le *Calendra orizae*. Bordeaux, Actes soc. linn., (sér. 6), **57**, 1902, (17-27). [4819 4831]. 241

- Lameere, A.** Étude sur la phylogénie des longicornes. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (314-323). [4831]. 242
- Revision des Prionides Anoploclermines. Bruxelles, Ann. Soc. ent. Belgique, **46**, 1902, (59-111, 191-225). [4831]. 243
- Nouvelles notes pour la classification des coléoptères. Bruxelles, Ann. Soc. ent. Belgique, **47**, 1903, (155-165). [4831]. 244
- Lampa, Sven.** The potato beetle in Europe again. (Swedish). Entomol. Tidskr., Stockholm, **22**, 1901, (170-174). [4819 4831]. 245
- Lapouge, G.** Vacher de. Tableau de détermination des formes du genre *Carabus* (suite). Echange, Lyon, **17**, 1902, (26-27, 36-38, 42-44, 59-60, 65-66, 73-74, 82-83, 94-95, 100-101, 117-118, 131, 149-150). [4831]. 246
- Lauffer, G.** Vorläufige Diagnose eines neuen spanischen *Dorcasion*. Soc. Entomol., Zürich, **17**, 1902, (105). [4827 dy 4831]. 247
- Lavagne, H.** Description du mâle de *Cryptocephalus mayeti* Mars. Echange, Lyon, **17**, 1902, (81-82). [4831]. 248
- Note sur *Caenoptera marmottani* Bris. Echange, Lyon, **18**, 1902, (85-86). [4831 4819 4827 d]. 249
- Lea, Arthur M.** Revision of the Australian *Curculionidae* belonging to the subfamily *Cryptorhynchides*. Part VI. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, **28**, 1903, (643-679). [4831]. 250
- Leardi-Airaghi, Z.** Di una *Melolontha* mostruosa (*Melolontha vulgaris*, Fabr.). Milano, Atti Soc. ital. sc. nat., **41**, 1902, (353-356, con fig.). [4831]. 251
- Lefebvre, A.** Résumé d'un mémoire de M. Louis Bureau, directeur du Muséum de Nantes, sur le *Lycta canaliculé* (*Lycta canaliculatus* Fabricius) et les ravages qu'il fit dans les parquets et autres bois ouverts (mœurs, expertises, jugements). (Nantes, Bul. soc. sci. nat., **10**, (2<sup>e</sup> semest.), 1900). Elbeuf, Bul. soc. sci. nat., **20**, 1901, [1902] (43-46). [4819 4831]. 252
- Long, Charles W.** Notes on *Coccinellidae*. New York, N.Y., J. Ent. Soc., **11**, 1903, (35-45, with pl., 193-213, with 2 pls.). [4831]. 253
- Leonhardt, Wilh.** Ueber das massenhafte Auftreten von *Coccinelliden* im Alten Lande im Winter 1901-1902. Aus d. Heimat, Bremerhaven, **1901**, 1903, (53-54). [4819 4831]. 254
- Lesne, P.** La distribution géographique des coléoptères bostrychides dans ses rapports avec le régime alimentaire de ces insectes. Rôle probable des grandes migrations humaines. Paris, C.-R. Acad. sci., **137**, 1903, (133-135). [4827 gh 4831]. 255
- *Bostrychus capucinus* L. Feuille jeunes natural., Paris, (sér. 4), **34**, 1903, (38). [4831 4819]. 256
- Liste des Bostrychides recueillis en Birmanie par feu M. G. Q. Corbett. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (85). [4827 gh 4831]. 257
- Lewis, G.** On new species of *Histeridae* and notices of others. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (417-429). [4831]. 258
- Lewis, J. H.** On a new species of *Odontia*. Wellington, Trans. N. Zool. Inst., **35**, 1903, (272). [4831]. 259
- Zomnicki, A. M[aryau].** Sur la faune de Léopol et de ses environs. I. Coleoptera. II Partie. (Polonais) Krakow, Spraw. Kom. fizyogr., **37**, 1903, (31-56). [4827 dk]. 260
- Zomnicki, Jaroslaw L. M.** Les formes du *Notiophilus aquaticus* L. de la Galicie. (Polonais) Kosmos, Lwów, **28**, 1903, (105-114). [4831 4827 dk]. 261
- Luigioni, P.** Note ed osservazioni sul l' *Anthypna carcelii* Laporte. (romana Duponchel). Mon. zool. ital. Firenze, **13**, 1902, (Supplemento), (20-22). [4831]. 262
- Luse, G.** Die Metamorphose von *Cantharis abdominalis* Fabr. Berliner ent. Zs., **47**, 1902, [1903], (239-242). [4831]. 263
- Revision der europäischen und sibirischen Arten der Staphyliniden-Gattungen *Tachyporus* und *Lamprinus* Heer. Wien, Verh. Zool.-Bot. Ges., **51**, 1901, (146-185). [4831]. 264
- *Bolitobiini*. Revision der paläarktischen Arten der Staphyliniden-Gattungen *Bryocharis* Boisd.

et Lac., *Bolitobius* Mannh., *Bryoporus* Kraatz und *Mycetoporus* Mannh. Wien, Verh. ZoolBot. Ges., **51**, 1901, (662-746). [4831]. 265

Luze, G. Revision der paläarktischen Arten der Staphyliniden-Gattungen *Anthophagus* Grav. und *Hygrogeus* Rey. Wien, Verh. ZoolBot. Ges., **52**, 1902, (505-530). [4807 4831]. 266

MacGillivray, Alex[ander] D. Aquatic *Chrysomelidae* and a table of the families of Coleopterous larvae. Albany Univ., N.Y. Bull. St. Mus., No. **68**, 1903, (288-327, with pl.). [4827 gg 4831]. 267

——— and Houghton, C. O. A list of insects taken in the Adirondack mountains, New York. 1. [Coleoptera]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (247-253). [2427 gg 4827 gg]. 268

Malinvaud, G. Orthographe du mot *Cutorrhynchus*. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (204). [4831]. 269

Marchal, C. Sur quelques coléoptères peu connus ou nouveaux pour Saône-et-Loire. Autun, Bul. soc. sci. nat., **15**, 1902, (Proc. verb. 263-265). [4827 df 4831]. 270

Marchand, Ernest. Description de deux arthropodes nouveaux provenant du Soudan français. Nantes, Bul. soc. sci. nat., (sér. 2), **2**, (2<sup>e</sup> semest.), 1902, (331-343, av. 1 pl.). [2627 fc 2631 4827 fc 4831]. 271

Mariatt, [Charles] I[ester]. A Chalcidid parasite [*Syntomosphyrum caurus*] of the Asiatic ladybird [*Chilocoris similis*] (with note by Dr. L. O. Howard). Washington, D.C., Proc. Ent. Soc., **5**, 1903, (138-139). [4619 4631 4831]. 272

Mazarakij, V. V. Zur Insectenfauna des St. Peterburger Gouvernements. (Russ.) St. Petersburg, Hor. Soc. Ent. Ross., **36**, 1903, (X-XXIV). [4827 db]. 273

——— Ueber den Erbsenkäfer (*Bruchus pisi* L.). (Russ.) St. Petersburg, Hor. Soc. Ent. Ross., **36**, 1903, (CI-III). [4819]. 274

——— Excursionen in der Umgebung St. Petersburgs im Frühling 1902. (Russ.) St. Petersburg, Hor. Soc. Ent. Ross., **36**, 1903, (CXIV-CXVIII). [4827 db]. 275

Mazarakij, V. V. Ueber die am meisten interessanten Coleoptera, welche im Gouv. St. Petersburg (excl. Luza-Kreis) im Laufe der letzten Jahre (1900 incl.) gefunden wurden. (Russ.) St. Petersburg, Hor. Soc. Ent. Ross., **36**, 1903, (CXVIII-CXLII). [4827 db]. 276

——— *Dromius cordicollis* Vorlbg. und *Aegialia rufa* Fbr., zwei für das Gouv. St. Petersburg neue Arten. (Russ.) St. Petersburg, Hor. Soc. Ent. Ross., **36**, 1903, (CLVI-CLX). [4827 db]. 277

Méquignon, Auguste. Capture de coléoptères nouveaux pour le bassin de la Seine. Paris, Bul. soc. ent., **1902**, (238-239). [4827 df]. 278

Meunier, Fernand. Ueber einige Coleopteren - Flügeldecken aus der präglacialen Braunkohle und dem interglacialen Torflager von Lauenburg (Elbe). Berlin, Jahrb. geol. Landesanst., **24**, 1901, Abh. auss. st. Pers., (31-38). [4831 4827 de]. 279

Meyer-Darcis, G. Beiträge zur Kenntniss der Gattung *Optolabrus* Solier. Schaffhausen, Mitt. Schweiz. Entomol. Ges., **10**, 1902, (405-410, mit 1 pl.). [4827 eb 4831]. 280

——— Beschreibung eines neuen Hirschkäfers, *Odontolabis frühstorferi*, Meyer-Darcis. Mitt. Schweiz. Entomol. Ges., **10**, 1902, (410-411, 1 pl.). [4827 ed 4831]. 281

Mitchell, J. D. Observations on the habits of two *Cicindelidae* [*Tetracha carolina* and *Cicindela rectilatera*]. Washington, D.C., Proc. Ent. Soc., **5**, 1903, (108-110). [4819 4831]. 282

Mjöberg, Eric. A hatching experiment. *Hadrotoma mar inata* Payk. (Swedish) Entomol. Tidkr., Stockholm, **22**, 1901, (189-190). [4815 4831]. 282a

——— Rare Coleoptera. 1. From the environs of Stockholm. (Swedish) Entomol. Tidkr., Stockholm, **22**, 1901, (191-192). [4827 da 4831]. 282b

Möllenkamp, W. Beitrag zur Kenntnis der Lucaniden-Fauna. D. ent. Zs., Berlin, **1903**, (337-355). [4831]. 283

Mollandin de Boissy, R. Les dégâts causés en France par deux espèces de *Capnodis*. Internéd. Bombycult., Paris, **3**, 1903, (36-39). [4819]. 284

**Morrill**, Austin W. Notes on the early stages of *Corylophodes marginicollis* Sec. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **4**, 1903, (135-138, with pl.). [4831]. 285

**Mory**, Claude E. Liste der 1898 im Jourtal gesammelten Coleopteren. Schaffhausen, Mitt. Schweiz. Entomol. Ges., **10**, 1903, (469-473). [4827 di]. 286

**Moser**, J. Neue Cetoniden-Arten. Berliner ent. Zs., **47**, 1902, [1903], (283-287); **48**, 1903, (315-320). [4831]. 287

——— Zwei neue Cetoniden-Arten. Berliner ent. Zs., **48**, 1903, (145). [4831]. 288

**Müller**, Jos. Ueber das Männchen von *Adorus obscurus* L. Zool. Anz., Leipzig, **27**, 1903, (39-41). [4831 4807]. 289

**Müller**, Josef. *Lwanidae* et *Scarabaeidae* Dalmatiae. Wien, Verh. Zool. Bot. Ges., **52**, 1902, (438-466). [4827 dk 4831]. 290

**Münster**, Ths. New Coleoptera from Norway. (Norw.) Nyt. Mag. Naturv., Kristiania, **41**, 1903, (239-258). [4827 da]. 291

**Murtfeldt**, Mary E. Another Yucca-feeding insect [*Carpophilus melanopterum*]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., Amer. Ent. Soc., **14**, 1903, (293-295). [4819 4831]. 292

**Nawa**, Yarushi. Life history of *Zephyrus taxila*, Bremer. (Japanese) Konch. Sek., Gifu, **7**, 1903, (317-319). [4831]. 293

**Nicéville**, Lionel de (*the late*). Insect pests of forest trees. Calcutta, Ind. Mus. Notes, **5**, 1903, (103-117, with pls.). [4019 4419 4819]. 294

——— Insect pests of fruit trees. Calcutta, Ind. Mus. Notes, **5**, 1903, (117-127, with pls.). [4019 4419 4619 4819]. 295

——— Insect pests of plants. Calcutta, Ind. Mus. Notes, **5**, 1903, (127-130, with pls.). [4019 4419 4819]. 296

——— Insect pests of vegetables. Calcutta, Ind. Mus. Notes, **5**, 1903, (131-134, with pls.). [4419 4819]. 297

——— Insect pests of cereals and crops. Calcutta, Ind. Mus. Notes, **5**, 1903, (134-143, with pls.). [4019 4219 4419 4819]. 298

**Nicéville**, Lionel de (*the late*). Insect pests of indigo. Calcutta, Ind. Mus. Notes, **5**, 1903, (144-164, with pls.). [4019 4419 4819]. 299

——— Insect pests of the sugar cane. Calcutta, Ind. Mus. Notes, **5**, 1903, (164-182, with pls.). [4019 4419 4619 4819]. 300

——— Insect pests of tea. Calcutta, Ind. Mus. Notes, **5**, 1903, (185-189, with pls.). [4419 4819]. 301

**Nicolas**, A. *Haplocnema (Mesosa) curculionoides* L. var. *bicolorata* n. var. Echange, Lyon, **17**, 1902, (28). [4831]. 302

**Nielsen**, J. C. Zur Lebensgeschichte des Haselbockkäfers (*Obera linearis* Fabr.). Zool. Jahrb., Jena, Abt. f. Syst., **18**, 1903, (659-664, mit 1 Taf.). [4819 4831]. 303

**Norman**, A. M. Notes on the Natural History of East Finmark. [Insecta] Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (166-173). [4227 db 4231 4427 db 4431 4627 db 4631 4827 db 4831]. 304

**Oertzen**, E. von. Ueber einige von Dr. Horn auf Ceylon gesammelte Tenebrioniden. D. ent. Zs., Berlin, **1903**, (233-236). [4831 4827 ef]. 305

**Ohaus**, Fr. Beiträge zur Kenntnis der Ruteliden. D. ent. Zs., Berlin, **1903**, (209-228). [4831]. 306

——— Verzeichnis der von Herrn Richard Haensch in Ecuador gesammelten Ruteliden (Coleoptera lamellicornia). Berliner ent. Zs., **48**, 1903, (215-242). [4831 4827 he]. 307

**Olivier**, Ernest. Coléoptères Lampyrides capturés à Dardjiling par M. Harmand. Bul. Muséum, Paris, **1903**, (19-20). [4827 ef 4831]. 308

**Orbigny**, H. d' Notes sur divers Anthophagides de l'Afrique australe. Paris, Ann. soc. ent., **72**, (2<sup>e</sup> semest.), 1903, (289-300). [4827 fg 4831]. 309

**Perraudière**, R. de la. Note sur *Coroebus fasciatus* Vill.—*bifasciatus* Ol. et ses parasites. Paris, Bul. soc. ent., **1902**, (251-253). [4619 4819 4831]. 310

**Petri**, Karl. Das Haftorgan von *Malthodes spathifer* Kicsw. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., **1**, 1903, (410-412). [4807 4831]. 311

**Peyerimhoff, P. de.** Coléoptères nouveaux pour la faune française. Description d'une espèce inédite. Paris, Bul. soc. ent., **1902**, (246-247). [4827 *df* 4831]. 312

Descriptions des larves de trois coléoptères exotiques. Paris, Ann. soc. ent., **71**, (2<sup>e</sup> semest.), 1902, [1903], (710-718, av. fig.). [4815 4831]. 313

Sur l'état de la systématique en entomologie, principalement chez les coléoptères. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (37-42). [2431 4831]. 314

Sur la méthode dans les recherches de phylogénie entomologique. Feuille jeunes natural., Paris, (sér. 4), **33**, (89-95). [2423 2431 4823 4831]. 315

**Pic, Maurice.** Anthicides de Manille. Paris, Ann. soc. ent., **71**, (2<sup>e</sup> semest.), 1902, (643-648). [4827 *eg* 4831]. 316

Contribution à l'étude générale des *Hylophilidae*. Paris, Ann. soc. ent., **72**, 1903, (65-107). [4827 4831]. 317

Voyage de M. Maurice Maindron dans l'Inde méridionale (mai à novembre 1901), 3<sup>e</sup> Mémoire.—Anthicides. Paris, Ann. soc. ent., **72**, (2<sup>e</sup> semest.), 1903, (348-352). [4827 *ef* 4831]. 318

Descriptions de deux *Hylophilus* d'Océanie appartenant au Musée civique de Gènes. Paris, Bul. soc. ent., **1902**, (227-228). [4827 *ia ig* 4831]. 319

Note sur *Ernobius normandi* Pic. Paris, Bul. soc. ent., **1902**, (250-251). [4831]. 320

Anthicides nouveaux des collections du Muséum de Paris. Bul. Muséum, Paris, **1903**, (20-21). [4831]. 320A

Diagnoses de coléoptères de l'Ancien et du Nouveau Monde. Echange, Lyon, **17**, 1902, (23-26). [4831]. 321

Deux variétés nouvelles de *Purpuricenus* Fisch. Echange, Lyon, **17**, 1902, (27). [4831]. 322

Nouvelles espèces et variétés de coléoptères paléarctiques. Echange, Lyon, **17**, 1902, (31-33, 33-35, 79-80). [4831 4827 *d fa*]. 323

**Pic, Maurice.** Un nouveau genre et quatre nouvelles espèces de *Hylophilidae*. Echange, Lyon, **17**, 1902, (33-34). [4831]. 324

Diagnoses de *Sibinia* nouvelles. Echange, Lyon, **17**, 1902, (39-40). [4831]. 325

Deux notes entomologiques avec synopsis. Echange, Lyon, **17**, 1902, (41-42). [4831]. 326

Coléoptères intéressants rares ou nouveaux pour la faune française. Echange, Lyon, **17**, 1902, (46). [4831 4827 *df*]. 327

Descriptions et notes diverses. Echange, Lyon, **17**, 1902, (47-49, 55-57, 71-72). [4831]. 328

Coléoptères nouveaux originaires de la Patagonie. Echange, Lyon, **17**, 1902, (49-51). [4831]. 329

Coléoptères intéressants, rares ou nouveaux pour la faune française (fin). Echange, Lyon, **17**, 1902, (51). [4831 4827 *df*]. 330

Sur quelques *Rhagonycha* de France. Echange, Lyon, **17**, 1902, (53-54). [4831 4827 *df*]. 331

Sur *Trichodes (Clerus) apiarius* L. et *T. alcearius* Fabr. Echange, Lyon, **17**, 1902, (61-62). [4831]. 332

Coléoptères présumés nouveaux de la faune circumméditerranéenne. Echange, Lyon, **17**, 1902, (63-65). [4831 4827 *d fa*]. 333

Sur l'identité générique de *Gonodera delagrangi*. Echange, Lyon, **17**, 1902, (68-69). [4831]. 334

Coléoptères nouveaux de l'île de Ténériffe. Echange, Lyon, **17**, 1902, (80-81). [4831 4827 *lb*]. 335

Notes entomologiques diverses et descriptions. Echange, Lyon, **19**, 1903, (89-91). [4831]. 336

Descriptions et notes complémentaires sur divers coléoptères paléarctiques. Echange, Lyon, **19**, 1903, (97-98). [4831]. 337

Coléoptères exotiques nouveaux. Echange, Lyon, **19**, 1903, (98-100, 105-107). [4831]. 338

Diagnoses préliminaires de Longicornes provenant de Chine. Echange, Lyon, **19**, 1903, (105). [4831 4827 *eb*]. 339

**Pic, Maurice.** Descriptions et habitats de divers coléoptères du Nord de l'Afrique. Echange, Lyon, **19**, 1903, (113-115). [4831 4827 fa]. 240

— Nouveaux coléoptères d'Europe. Echange, Lyon, **19**, 1903, (115). [4831 4827 d]. 341

— Coléoptères nouveaux d'Asie et d'Afrique. Echange, Lyon, **19**, 1903, (119-120). [4831 4827 e f]. 342

— Captures, notes diverses et diagnoses. Echange, Lyon, **19**, 1903, (129-131). [4831]. 343

— Quelques coléoptères rares ou nouveaux pour la faune gallo-rhénane. Echange, Lyon, **19**, 1903, (153-155). [4831 4827 df]. 344

— Malthinides nouveaux. Echange, Lyon, **19**, 1903, (155-158). [4831 4827 fa]. 345

— Espèces et variétés nouvelles de coléoptères. Echange, Lyon, **19**, 1903, (161-163, 169-171, 177-178). [4831]. 346

— Note sur le genre *Glaphyrus* Latr. Echange, Lyon, **19**, 1903, (173-174). [4831]. 347

— Nouvel habitat de *Cebrio gigas* F. Echange, Lyon, **19**, 1903, (184). [4831 4827 df]. 348

— Anthicides exotiques nouveaux. Naturaliste, Paris, (sér. 1), **25**, 1903, (56). [4831]. 349

— Coléoptères exotiques nouveaux. Naturaliste, Paris, (sér. 2), **25**, 1903, (81). [4831]. 349A

— Notes et diagnoses sur divers Tichyini. Autun, Bul. soc. sci. nat., **15**, 1902, (Proc. verb. 139-148). [4831]. 350

— Diagnoses d'*Anthicidae* exotiques. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (89-91). [4831]. 351

— Contribution à l'étude des Xyletini du Brésil. Bruxelles, Ann. Soc. ent. Belgique, **46**, 1902, (17-18). [4827 hh 4831]. 352

— Addenda aux Xyletini du Brésil. Bruxelles, Ann. Soc. ent. Belgique, **46**, 1902, (130-131). [4831]. 353

**Pic, Maurice.** Essai dichotomique sur le genre *Gilboxyletinus*. Bruxelles, Ann. Soc. ent. Belgique, **46**, 1902, (132-133). [4831]. 353A

— Nouveaux Anthicides des collections du Musée Zoologique de l'Ac. Imp. Sc. à St. Peterburg. St. Peterburg, Ann. Mus. Zool. Ac. Sc., **8**, 1903, (88-89). [4831]. 354

**Picard, F.** Observations coléoptérologiques. *Acilius canaliculatus*. — *Bradycellus distinctus*. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (64). [4827 df 4831]. 355

**Pierre, abbr.** Sur l'évolution de *Lixus iridis* Oliv. et de Chalcidides parasites de l'œuf, de la larve et de l'imag. Echange, Lyon, **19**, 1903, (108-110, 116-117, 132-133, 141-144). [4819 4619 4831 4631]. 356

**Planet, Louis.** Description d'un Lucanide nouveau. Naturaliste, Paris, (sér. 2), **25**, 1903, (11-12, av. fig.). [4831]. 357

**Planta-Canova, P. C.** Revision der Verordnung ueber Vertilgung der Mäikäfer und Egerlinge. Volkswirthsch. Bl. Graubünden, Chur, **1903**, No. 11, (1-2), No. 12, (1 2). [4803 4831]. 358

**Pohl, Robert.** Eine Käferernte. Aus d. Heimat, Stuttgart, **15**, 1902, (48-53). [4827 de 4831]. 359

**Pomerancev, Dmitrij.** *Scolytus carpini* Rtlz, gefunden auf dem Haselaussstrauch (*Corylus avellana* L.). (Russ.) St. Peterburg, Hor. Soc. Ent. Ross., **36**, 1903, (118-124, Taf. I). [4819 4831]. 360

— Notes biologiques sur les coléoptères vivant sous les écorces et utiles dans la silviculture. IV. (Russ.) Rev. Russ. Ent., Jaroslavl, **3**, 1903, (22-23); V. Fam. *Histeridae*, ib., (77-78); VI. Fam. *Cleridae*, ib., (200-202). [4819]. 361

— Beitrag zur Kenntnis der auf der Fichte (*Picea excelsa*) lebenden schädlichen und nützlichen Insecten. (Russ.) St. Peterburg, Izv. Leśn. Inst., **8**, 1902, (3-25, mit 1 Taf.). [4015 4019 4415 4419 4615 4619 4815 4819]. 362

**Portevin, G.** Clavicornes nouveaux du groupe des Nécropages. Paris, Ann. soc. ent., **72**, 1903, (156-163, av. pl.). [4831]. 363

**Foujade, G. A.** Nouvelle note sur l'*Hydrophilus piceus*. Paris, Bul. soc. ent., 1902, (238). [4819 4831]. 364

**Frediger, G[eorg].** Zoogeographisches aus Thüringen. Insektenbörse, Leipzig, 20, 1903, (220). [4827 de]. 365

——— Zoogeographisches aus Südhüringen. Insektenbörse, Leipzig, 20, 1903, (356-357). [4827 de]. 366

**Freiss, Paul.** *Cetonidae*. (Wissenschaftl. Resultate der Reise Carlo Frhrn. v. Erlanger's durch Süd-Schöa, Galla u. Somaliländer). Wiesbaden, Jahrb. Ver. Natk., 55, 1902, Abt. II, (93-111, mit 1 Taf.). [4831 4827 ff]. 367

**Frossen, Theodor v. Holdhaus, Karl.**

**Quittard, J.** Contribution à la faune des coléoptères du département du Puy-de-Dôme, principalement des environs de Riom (supplément). Echange, Lyon, 19, 1903, (160, 165-166, 173). [4831 4827 df]. 368

**Rafraay, A.** Psélaphides recueillis dans le sud de Madagascar par T. Ch. Alluaud. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (315-330, av. fig.). [4827 fh 4831]. 369

——— Voyage de M. L. Biró dans les possessions allemandes de la Nouvelle-Guinée. Psélaphides. Descriptions d'espèces nouvelles. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (29-106, mit Taf. I-II). [4827 ia 4831]. 370

**Régimbart, M.** Coléoptères aquatiques (*Malipilidae*, *Dytiscidae*, *Gyrinidae* et *Hydrophilidae*), recueillis dans le sud de Madagascar par M. Ch. Alluaud, (juin 1900—mai 1901). Paris, Ann. soc. ent., 72, 1903, (1-51). [4827 fh 4831]. 371

——— Contribution à la faune Indo-Chinoise (19<sup>e</sup> Mémoire): *Hydrophilidae*. Paris, Ann. soc. ent., 72, 1903, (52-64). [4827 ed 4831]. 372

——— Voyage de M. Maurice Muindron dans l'Inde méridionale (mai à novembre 1901) 1<sup>er</sup> Mémoire. Dytiscides, Gyrinaides, Palpicornes. Paris, Ann. soc. ent., 72, 2<sup>e</sup> semest.), 1903, (231-339). [4827 ef 4831]. 373

**Reichert, Alex.** Die Eier von *Sternocera sternicornis* L. Ent. Jahrb., Leipzig, 12, 1903, (171-175). [4831 4815]. 374

**Reitter, E.** Bestimmungs-Tabelle der Tenebrioniden-Abteilungen: Tentyrini und Adelostomini aus Europa und den angrenzenden Ländern. Brünn, Verh. Natf. Ver., 39, (1900), 1901, (82-197). [4831]. 375

——— Analytische Uebersicht der palaearctischen Gattungen und Arten der Coleopteren Familien *Byrrhidae* (*Anobiidae*) und *Cioidae*. Brünn, Verh. Natf. Ver., 40, (1901), 1902, (3-64). [4831]. 376

——— Bestimmungs-Tabelle der *Melolonthidae* aus der europäischen Fauna und den angrenzenden Ländern, enthaltend die Gruppen der *Pachydesmini*, *Serieini*, und *Melolonthini*. Brünn, Verh. Natf. Ver., 40, (1901), 1902, (93-303). [4831]. 377

**Ritsema, Cn. C.** A new species of the lucanoid genus *Cardanus*. Leiden, Notes Mus. Jentink, 23, 1903, (229-230). [4831]. 378

**Rivers, J. J.** Myrmecophilous Coleoptera or ant-loving beetles. Los Angeles, Bull. So. Cal. Acad. Sci., 1, 1902, (71). [4819]. 379

**Robinson, H. C.** Report on the Tiger beetles (*Cicindelidae*). Fascic. Malay. Zool., 1, (179-183). [4827 ej 4831]. 380

**Roman, A[braham].** *Hapalus bimaculatus* L. found in Sweden. Entomol. Tidskr., Stockholm, 22, 1901, (166). [4827 da 4831]. 381

**Roon, G. van.** *Sobarus velhi*, ein neuer Prionide aus Central-Afrika. s' Gravenhage, Tijdschr. Ent., 45, 1903, (243-245, mit 1 Fig.). [4827 fe 4831]. 382

**Rosenberg, E. C.** Larvæ of the groups *Lebiini* und *Odacanthini*, the genera *Lebia* und *Odacantha*. (Danish with an English summary) Kjöbenhavn, Ent. Medd., (Ser. 2), 2, 1903, (1-21, 1 pl.). [4815 4831]. 383

**Rybínáki, M.** Coléoptères nouveaux pour la faune de la Galicie. II. Liste. (Polonais) Kraków, Spraw. Kom. fizyogr., 37, 1903, (15-30). [4827 dk]. 384

——— Liste des coléoptères trouvés en Podolie galicienne, entre Złoczów et Podwołoczyska, en 1884-1890. (Polish) Kraków, Spraw. Kom. fizyogr., 37, 1903, (57-175). [4827 dk]. 385



- Sahlberg, John.** Aleocharids collected in the arctic regions by the Swedish expeditions 1887 and 1899. (Swedish) Entomol. Tidskr., Stockholm, **22**, 1901, (167-169). [4827 k 4831]. 386
- *Coleoptera mediterranea et rosso-asiatica nova et minus cognita* II. Helsingfors, Öfvers. F. Vet. Soc., **45**, [No. 10], 1902-1903, (1-40). [4831]. 387
- *Messis hiemalis Coleopterorum Corcyraeorum.* Helsingfors, Öfvers. F. Vet. Soc., **45**, [No. 11], 1902-1903, (1-84). [4831 4827 d]. 388
- *Ad cognitionem faunae Coleopterorum Graecae fragmenta.* Helsingfors, Öfvers. F. Vet. Soc., **45**, [No. 12], 1902-1903, (1-9). [4831 4827 d]. 389
- *Ad cognitionem faunae Coleopterorum Italicae fragmenta.* Helsingfors, Öfvers. F. Vet. Soc., **45**, [No. 13], 1902-1903, (1-14). [4831 4827 dh]. 390
- *Coleoptera Levantina mensibus Februario et Martio 1896 in Palaestina et Aegyptio inferiore collecta.* Helsingfors, Öfvers. F. Vet. Soc., **45**, [No. 18], 1902-1903, (1-36). [4831 4827 ei fb]. 391
- *Coleoptera Numido-Punica mensibus Martio, Aprili et Majo 1899 in Tunisia et Algeria orientali collecta.* Helsingfors, Öfvers. F. Vet. Soc., **45**, [No. 19], 1902-1903, (1-70). [4831 4827 fa]. 392
- *Demonstration einer Sammlung von Ingenieur Isaac Ericson in Mölndal angefertigter Photographien sehr kleiner Coleopteren.* Helsingfors, Comptes rendus du Congrès des Naturalistes et Médecins du Nord tenu à Helsingfors du 7 au 12 juillet 1902, **1903**, VI Section, (18-19). [4803]. 393
- *Über Fang der Wasserkäfer und Verbreitung der Dytisciden in Finland.* Helsingfors, Comptes rendus du Congrès des Naturalistes et Médecins du Nord tenu à Helsingfors du 7 au 12 juillet 1902, **1903**, VI Section, (26-32). [4827 db 4803]. 394
- Sainte-Claire Deville, J.** Etude sur divers *Platysma* des Alpes occidentales. Paris, Ann. soc. ent., **71**, (2<sup>e</sup> semest.), 1902, (588-619). [4827 db 4831]. 395
- Sainte-Claire Deville, J.** Exploration entomologique des grottes des Alpes-Maritimes. Ann. soc. ent., Paris, **71**, 1902, [1903], (695-700, av. fig.). [2427 df 2431 2631 3031 3431 3631 3831 4831]. 396
- *Contribution à la faune du bassin de la Seine.* Paris, Bul. soc. ent., **1902**, (247-250). [4827 df]. 397
- *Remarques sur les Hydrophilidae de la faune française.* Echange. Lyon, **17**, 1902, (75-78, 83-85); **19**, 1903, (103-104, 111-112). [4831 4827 df]. 398
- *Sur les nouveaux Bembidium détachés des Tibiale Duft.* par Dr. K. Daniel. Echange, Lyon, **19**, 1903, (91-93). [4831]. 399
- *Note complémentaire sur les Bembidium du groupe des Tibiale Duft.* Echange, Lyon, **19**, 1903, (181-182). [4831]. 400
- Schaeffer, C.** Notes on *Derochrus* and *Acanthorhinus*. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (235-237). [4831]. 401
- Schenkling, Karl.** Taschenbuch für Käfersammler. 5. erweit. u. verb. Aufl. Leipzig (O. Leiner), [1903], (IV + 314 + XXIV, mit 13 Tal. nebst Erklärungen). 16 cm. Geb. 2,50 M. [4803]. 402
- Schenkling, Sigm.** Einige neue Cleriden des Stettiner Museums. Stettiner ent. Ztg., **64**, 1903, (16-21). [4831]. 403
- *Zur Systematik der Cleriden.* D. ent. Zs., Berlin, **1903**, (9-16). [4831]. 404
- *Ueber die Gattungsnamen Clerus und Trichodes.* Allg. Zs. Ent. Neudamm, **8**, 1903, (202-204). [4831]. 405
- *Zwei neue Cleriden des National-Museums zu Budapest nebst Bemerkungen zu schon beschriebenen Arten.* Budapest. Ann. Hist. Nat. Mus. Nat. Hung., **1**, 1903, (396-399). [4831]. 406
- *Coleoptera malacodermatae fam. Cleridae.* In: Wytzman, P., Bruxelles, Genera Insectorum, **1903**, (124, et 5 pls. hors texte). 4 vo. fr. 35. 10. [4831]. 407
- Schmidt, R. H.** Ueber eine neue *Thorictus*-Art aus Ost-Buchara (*Th. kaznakovi* n. sp.; Coleopt. *Thorictidae*).

St. Petersburg, Ann. Mus. Zool. Ac. Sc.,  
8, 1903, (389-391). [4831]. 408

**Schmitt**, Rev. Jerome. [*Scydmaenidae*  
and *Pselaphidae* of south-western Penn-  
sylvania] [in paper by H. O. Klages].  
Pittsburg, Pa., Ann. Carnegie Mus., 1,  
1901, (267-269). [4827 gg 4831]. 409

**Schneider**, J. Sparre. Coleoptera  
gathered by Embr. Strand in the  
Southern part of Nordlands Amt and  
in Lofoten and Vesteraalen in 1899 and  
1900. (Norw.) Trondhjem, kgl. Vid-  
elsk. Skr., 1902, No. 1, 1903, (30).  
[4827 da]. 410

**Schneider**, O. Ueber Melanismus  
korsischer Käfer. Dresden, SitzBer.  
Isis, 1902, 1903, (43-60). [4823  
4827 df]. 411

**Scholz**, Richard. Im Nebel und  
Regen. Insektenbörse, Leipzig, 20,  
1903, (19-20, 26-28). [4827 dk]. 412

— Eine kleine Käferausbeute  
aus Gastein. Insektenbörse, Leipzig,  
20, 1903, (140). [4827 de]. 413

**Schreiner**, J. F. Der Rebenschneider  
(*Lehrus apterus* Laxm.) und die Mittel  
zu dessen Bekämpfung. (Eine land-  
wirthschaftliche Monographie). (Russ.)  
Trd. B. entom. Učen. Kom. M. Zeml.,  
St. Petersburg, IV, No. 1, 1903, 45, mit  
10 Fig. u. 1 Taf.). [4819 4831]. 414

— Ueber den Mais-Roskakäfer  
(*Pentodon monolon* Fabr.). (Russ.)  
Trd. B. entom. Učen. Kom. M. Zeml.,  
St. Petersburg, III, No. 9, 1902, (11, mit  
3 Fig.). [4819 4831]. 415

**Schultze**, A. Paläarktische Ceuthor-  
rhynchinen. D. ent. Zs., Berlin, 1903,  
(241-286). [4831]. 416

— Zum Verzeichniss der  
paläarktischen Ceuthorrhynchinen. (D.  
ent. Zs., Berlin, 1902, 205-226). D. ent.  
Zs. Berlin, 1903, (287-291). [4831  
4827]. 417

— Zusammenstellung einer  
Varietäten-Reihe paläarktischer Ceuthor-  
rhynchinen. D. ent. Zs., Berlin, 1903,  
(292-294, 424). [4831]. 418

— *Iaris gudenusi* n. sp.  
Wien, Verh. ZoolBot. Ges., 51, 1901,  
(212-215). [4807 4831]. 419

— Generis Ceuthorhynchi  
species novae rossicae et transcaspicae.  
St. Petersburg, Ilor. Soc. Ent. Ross., 36,  
1903, (65-89). [4827 db ea 4831]. 420

(N 2-0053)

**Schwarz**, Otto. Sechs neue nord-  
amerikanische Elateriden. D. ent.  
Zs., Berlin, 1903, (57-62). [4827 g  
4831]. 421

— Neue Elateriden aus Süd-  
amerika. D. ent. Zs., Berlin, 1903, (63-  
80). [4827 h 4831]. 422

— Aenderung des Gattungs-  
namens *Gastrimargus* Schw. (Stett. ent.  
Zeitg. 1902, p. 309.) D. ent. Zs., Berlin,  
1903, (80). [4831]. 423

— Neue Elateriden aus Afrika  
und Madagaskar. D. ent. Zs., Berlin,  
1903, (357-376). [4827 f 4831]. 424

— Neue Elateriden aus Neu-  
Guinea und Australien. D. ent. Zs.,  
Berlin, 1903, (377-398). [4827 i 4831].  
425

— Zwei neue Arten der  
Throsciden-Gattung *Lissomus* Dalm.  
aus Deutsch Ostafrika. D. ent. Zs.,  
Berlin, 1903, (399-400). [4827 ff  
4831]. 426

**Scriba**, E. *Velleius dilatatus* F.  
Insektenbörse, Leipzig, 20, 1903, (212).  
[4831 4810]. 427

**Seelen**, von. Engerling-Vertilgung.  
Zs. Forstw., Berlin, 35, 1903, (368-373).  
[4803 4831]. 428

**Selditz**, Georg. [Bericht über die  
Wissenschaftl. Leistungen im Gebiete d.  
Entomologie 1901.] Coleoptera. Arch.  
Natg., Berlin, 68, Bd 2, H. 2, 1902,  
[1903], (45-284); D. ent. Zs., Berlin,  
1902, H. 3, [1903], (45-284). [4803].  
429

**Semenov**, A. P. De genero *Nycti-  
phantus* Sem. ejusque speciebus. (Russ.)  
St. Petersburg, Hor. Soc. Ent. Ross., 36,  
1903, (176-182). [4831]. 430

— Coleoptera nova faunae  
turanicae. I, II. Rev. Russ. Ent., Jaro-  
slavl', 3, 1903, (8-13, 353-357). [4827 ea  
4831]. 431

— *Analecta coleopterologica*  
I-V. Rev. Russ. Ent., Jaroslavl', 3,  
1903, (14-15, 99-100, 169-173, 306-307,  
390-392). [4831]. 432

— Synopsis specierum generis  
*Athermes* Rtt. 1891. Rev. Russ. Ent.,  
Jaroslavl', 3, 1903, (26-28). [4831].  
433

— *Duae novae Scolytidarum*  
species e Rossia. (Russ.) Rev. Russ.  
Ent., Jaroslavl', 3, 1903, (79-80).  
[4831]. 434

**Semenov, A. P.** Sur la structure et le rôle du pédoncule mésothoracique chez certains coléoptères. (Russ.) Rev. Russ. Ent., Jaroslavl, **3**, 1903, (85-88, av. 1 fig.). [4807]. 435

Les ailes inférieures des coléoptères, considérées comme caractère systématique. (Russ.) Rev. Russ. Ent., Jaroslavl, **3**, 1903, (103-106). [4831]. 437

Sur la chasse, au printemps, de quelques coléoptères caractéristiques pour la Russie d'Europe II. (Russ.) Rev. Russ. Ent., Jaroslavl, **3**, 1903, (154-155). [4819]. 438

Synopsis specierum generis *Julodella* Sem. Rev. Russ. Ent., Jaroslavl, **3**, 1903, (161-165). [4831]. 439

Sur la position systématique du groupe de Céphaloides. (Russ.) Rev. Russ. Ent., Jaroslavl, **3**, 1903, (183-186). [4831]. 441

La position systématique du genre *Epactius* Schneid = *Omophron* Latr. et les rapports naturels de la famille des *Halipidae* C. G. Thoms. (Russ.) Rev. Russ. Ent., Jaroslavl, **3**, 1903, (187-190). [4831]. 442

Additamentum ad descriptionem *Julodis bucharicae* San. 1893. Rev. Russ. Ent., Jaroslavl, **3**, 1903, (190). [4831]. 443

Notice sur le *Polyanthron* (*Pogonanthron*) *tchitscherini* Sem. (Russ.) Rev. Russ. Ent., Jaroslavl, **3**, 1903, (203-204). [4831]. 444

Nouvelles formes du genre *Carabus* (L.) de la Perse septentrionale. *Carabidae*. (Russ.) Rev. Russ. Ent., Jaroslavl, **3**, 1903, (230-232). [4827 eh 4831]. 445

Une nouvelle espèce du genre *Carabus* (L.) du Turkestan. (Russ.) Rev. Russ. Ent., Jaroslavl, **3**, 1903, (297-299). [4827 eh 4831]. 446

Novae species tibetanae generis *Carabus* (L.). Rev. Russ. Ent., Jaroslavl, **3**, 1903, (349-352). [4827 eb 4831]. 448

De nova *Purpuriceni* specie e Persia Austro-orientale. Rev. Russ. Ent., Jaroslavl, **3**, 1903, (358-359). [4827 eh 4831]. 450

*Callipogon* (*Foxenus*) *reictus* Sem. ♂ nondum descriptus.

(Russ.) Rev. Russ. Ent., Jaroslavl, **3**, 1903, (372-376, cum fig.). [4831] 451

**Semenov, A. R.** De speciebus generis *Carabus* (L.) subgenus *Alipaser* Rtt. formantibus. Rev. Russ. Ent., Jaroslavl, **3**, 1903, (381-383). [4831]. 452

Coléoptères nouveaux pour la faune de la Russie IV. (Russ.) Rev. Russ. Ent., Jaroslavl, **3**, 1903, (401-403). [4827 db ea]. 454

**Sempolowski, A.** [Un nouveau coléoptère dévastant les betteraves]. (Polonais) Gaz. roln., Warszawa, **43**, 1903, (281-282). [4819]. 455

**Sharp, D.** New species of Lamellicorn Coleoptera from the Nilgiri Hills. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (467-473). [4827 ef 4831]. 456

Some new Coleoptera from the Chatham Islands and New Zealand. Ent. Mag., London, **39**, 1903, (105-110). [4827 od ik 4831]. 457

*Tetropium fuscum* Fabr., a genus and species of Longicorn Coleoptera new to Britain. Ent. Mag., London, **39**, 1903, (198-199). [4827 de 4831]. 458

On some Coleoptera from the Farø Islands. Ent. Mag., London, **39**, 1903, (249-250). [4827 da 4831]. 459

A Coleopterous insect embedded in the wall of the human intestine. Cambridge, Proc. Phil. Soc., **12**, 1903, (199, 200). [4819 4831]. 460

*Helicopriss monhotus* and *dominus*. Fascic. Malay. Zool., **1**, (281-287). [4823 4827 eg 4831]. 461

Coleoptera. III. Coleoptera Caraboidea. Fauna Hawaiensis, vol. III, (175-292, pls. VI, VII). [Summary] Entomologist, London, **36**, 1903, (263). [4823 4827 nd 4831]. 462

Description of a new genus and species of Coleoptera (Fam. *Hispidae*) from New Britain. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, **28**, 1903, (924, 925). [4831]. 463

**Slantjev, A. A.** Der punktbäuchige Hohlrüßler (*Cleonus punctiventris*) und andere Rüsselkäfer, welche der Zuckerrübe in Russland schädlich werden, deren Beschreibung, Lebensweise und Bekämpfung. St. Petersburg, 1903 (167, mit 28 Fig. u. 1 Taf.). 23 cm. (0.50 Rub.). [4815 4819]. 464

**Silva Tavares**, Joaquim da. Bewegungen der Galle des Käfers *Nanophyes pallidus* Oliv. Insektenbörse, Leipzig, 20, 1903, (60-61). [4831]. 465

**Sirijajev**, N. Un nouveau *Hister* de la Russie méridionale. Rev. Russ. Ent., Jaroslavl, 3, 1903, (16). [4831]. 466

**Skinner**, Henry. Coleoptera [from Beulah, New Mexico]. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., 29, 1902, (38-41). [4827 gi 4831]. 467

——— A new variety of *Tegrodera*. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (168). [4831]. 468

——— Notes on *Duprestidae* with descriptions of new species. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (236-239, 1 pl.). [4831]. 469

**Slingerland**, M. V. The elm leaf beetle found at Ithaca, N.Y. [*Galerucella luteola*]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (30). [4827 gg 4831]. 470

——— Three unusual strawberry pests [*Cacoecia oboletana*, *Harpalus caliginosus* and *H. pennsylvanicus*] and a greenhouse pest [*Phlytaenia rubigalis*]. Agric. Exp. Sta., New York, (Cornell Station), Ithaca, Bull. No. 190, 1901, (143-164, with 15 figs.); [review], Washington, D.C., U. S. Dept. Agric., Off. Exp. Sta., Rec., 13, 1901, (371-372). [4419 4431 4831]. 471

**Sloane**, Thomas G. Studies in Australian Entomology No. XII. Sydney, N.S.W., Proc. Linn. Soc., N. S. Wales, 28, 1903, (566-642). [4831]. 472

**Slosson**, Annie Trumbull. Additional list of insects taken in Alpine region of Mt. Washington. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (4-8). [2427 gy 4631 4831]. 473

**Snow**, F[rancois] H[untington]. List of Coleoptera and Lepidoptera collected in Hamilton, Morton and Clark counties, Kansas, 1902 and 1903. Lawrence, Kan. Univ. Sci. Bull., 2, 1903, (191-208). Separate. 27.8 cm. [4427 gi 4827 gj]. 474

**Sondermann**, R. Ueber einen Rüssel- und einige Borkenkäfer, die sich in neuerer Zeit im Regierungsbezirk Stade an Nadel- und Obstbäumen besonders schädlich erwiesen haben. Aus d. Heimat, Bremerhaven, 1901-1902, 1903, (38-40). [4819]. 475

**Spaeth**, Franz. Zusammenstellung der bisher von Neu-Guinea bekannt gewordenen Cassiden mit besonderer Berücksichtigung der Sammlungen des ungarischen National-Museums und des Museo civico von Genua. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (109-160). [4827 in 4831]. 476

——— Beschreibung neuer Cassiden nebst synonymischen Bemerkungen. Wien, Verh. ZoolBot. Ges., 51, 1901, (333-350). [4831]. 477

——— Ueber *Chelysida* und *Oxy-lepus* als zwei verschiedene Cassiden-Gattungen. Wien, Verh. ZoolBot. Ges., 51, 1901, (750-756). [4831]. 478

**Stebbing**, E. P. A note on the discovery of *Thanasimus* sp. prox *nigricollis* in the N. W. Himalayas, with some remarks on its life-history. Calcutta, J. As. Soc. Beng., 72, pt. 2, 1903, (104-110). [4831 4827 cf]. 479

——— Insect pests of the sugarcane in India. Calcutta, Ind. Mus. Notes, 5, 1903, (64-91). [2419 3319 4019 4419 4610 4819]. 480

——— Departmental Notes on Insects that affect Forestry, No. 2. Calcutta, 1903, (V-VII + 151-334, with 13 pls.). 25 cm. [2419 4031 4231 4431 4631 4831]. 481

**Sternberg**, Chr. Zur Gattung *Lycomedes* de Brême. D. ent. Zs., Berlin, 1903, (300-304). [4831]. 482

**Stierlin**, G. Beschreibung einiger neuen Species von Coleopteren. Mitt. Schweiz. Entomol. Ges., 10, 1902, (425-427). [4827 d 4831]. 483

——— Beschreibung von zwei neuen europäischen Rüsselkäfern. Mitt. Schweiz. Entomol. Ges., 10, 1903, (483-484); 11, 1903, (56-57). [4827 da 4831]. 484

**Strand**, Emhr. Rhynchophora found in Norway. (Norw.) Kristiania, Forh. Vid. Selsk., 1903, No. 2, (14). [4827 da]. 485

——— Staphylinids and Apions, new for the Norwegian fauna. (Norw.) Entomol. Tidskr., Stockholm, 22, 1901, (143). [4827 da 4831]. 486

**Suvorov**, G. L. Notiz über *Clytus popovi* Maunerk. (Russ.) St. Petersburg, Hor. Soc. Ent. Ross., 36, 1903, (XXXII). [4819 4831]. 487

**Tower**, William Lawrence. The development of colours and colour patterns of Coleoptera, with observations upon the development of colour in other orders of insects [with bibliography]. Chicago, Ill., Dec. Pub. Univ. Chic., (Ser. 1), 10, 1903, ([31]-40, with pl.). [2407 4807]. 488

——— The origin and development of the wings of Coleoptera. Zool. Jahrb., Jena, Abt. f. Anat., 17, 1903, (517-572, mit 7 Taf.). [4807 4815]. 489

**Townsend**, C[harles] H[enry] T[yler]. Contribution to a knowledge of the Coleopterous fauna of the lower Rio Grande valley in Texas and Tamaulipas, with biological notes and special reference to geographical distribution. Austin, Trans. Texas Acad. Sci., 5, (1902), 1903, (49-101). [4827 gi ha 4831]. 490

**Tschitscherine**, T. v. Čičerin, T.

**Vaney**, C. et **Conte**, A. Sur un diptère (*Degeeria funebris* Meg.) parasite de l'altise de la vigne (*Haltica ampelophaga* Guer.). Paris, C.-R. Acad. sci., 136, 1903, (1275-1276). [4219 4231 4819 4831]. 491

**Vaucher**, A. Note sur *Taragama* (*Megasoma*) *repanda*. Feuille jeunes natural., Paris, (sér. 4), 33, 1903, (52). [4819 4831]. 492

**Verhoeff**, Karl W. Ueber die zusammengesetzte Zirpvorrichtung von *Geotrupes*. Berlin, SitzBer. Ges. natf. Freunde, 1902, (149-155). [4819 4831]. 493

**Vlemeyer**, H. *Geotrupes typhoeus* L. Ent. Jahrb., Leipzig, 12, 1903, (254). [4831]. 494

——— Kellerbewohner. Ent. Jahrb., Leipzig, 12, 1903, (255-256). [4819]. 495

**Viturat**, abbé. Catalogue des coléoptères du département de Saône-et-Loire. Echange, Lyon, 17, 1902, (1-16, pagin. spéc.), (1-28, pagin. spéc.), 19, 1903, (29-54, pagin. spéc.). [4831 4827 df]. 496

——— Relation sur la capture de *Phosphaenus hemipterus* Goeze. Echange, Lyon, 17, 1902, (69-70). [4831 4819]. 497

**Voigts**, Hans. Neue ost- und südafrikanische *Zonabris*. D. ent. Zs., Berlin, 1903, (101-107). [4827 f 4831]. 498

——— Nicht *Zonabris* Har., sondern *Mylabris* Fabr.! Ein Beitrag zur Kritik der Geoffroy'schen Nomenklatur und zugleich Klarlegung des synonymischen Verhältnisses der Gattungsnamen *Bruchus*, *Larix*, *Mylabris*, *Pinus* und *Zonabris*. Allg. Zs. Ent., Neudamm, 8, 1903, (234-239). [4831 4803]. 499

**Vortxinger**, G. Ueber *Cryptocephalus aureolus* Suffr. und *sericeus* L. Insektenbörse, Leipzig, 20, 1903, (66). [4831]. 500

**Wasmann**, E[rich]. Zum Mimicrytypus der Dorylinengäste. (135. Beitrag zur Kenntniss der Myrmecophilen und Termitophilen.) Zool. Anz., Leipzig, 26, 1903, (581-590). [4619 4819]. 501

——— Berichtigung. [*Callopaenius* n. gen. Staphylinidarum = *Eupsenius* Wasmann.] D. ent. Zs., Berlin, 1903, (236). [4831]. 502

——— Coléoptères myrmécophiles recueillis par M. le professeur A. Lameere en Algérie. Bruxelles, Ann. Soc. ent. Belgique, 46, 1902, (159). [4819 4827 fa]. 503

——— Gattungstabelle der *Cosmophodidae*. Wien, Ann. Nat. Hist. Hofmus., 16, 1901, (95-96). [4831]. 504

**Waterhouse**, C. O. Description of a new Coleopterous insect belonging to the *Curculionidae*. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (229-230). [4831]. 505

——— Description of a new genus of Heteromorous Coleoptera. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (563-564). [4831]. 506

**Weise**, J. Verzeichniss der von Dr. Horn auf Ceylon gesammelten Chrysomeliden. I: Eupoda et Camptosomata. D. ent. Zs., Berlin, 1903, (17-34). [4827 ef 4831]. 507

——— Afrikanische Galerucinen. D. ent. Zs., Berlin, 1903, (35-56, mit 1 Taf.). [4827 f 4831]. 508

——— *Paropisterna striata* nov. spec. D. ent. Zs., Berlin, 1903, (108). [4831]. 509

Wespe, J. Ueber die mit *Lichenis* Richter verwandten Chrysomelen. D. ent. Zs., Berlin, 1903, (161-163). [4831]. 510

——— Bemerkungen über die ersten Entwicklungsstadien der *Coccinella conglobata* L. D. ent. Zs., Berlin, 1903, (164-166). [4815 4831]. 511

——— *Helota pauli* n. sp. D. ent. Zs., Berlin, 1903, (171). [4831]. 512

——— Ueber einige Endomychiden. D. ent. Zs., Berlin, 1903, (199-207). [4831]. 513

——— Drei neue Coccinellen. D. ent. Zs., Berlin, 1903, (207-208). [4831]. 514

——— Neue Coccinelliden. D. ent. Zs., Berlin, 1903, (229-232). [4831]. 515

——— Afrikanische Galerucinen. D. ent. Zs., Berlin, 1903, (321-334). [4827 f 4831]. 516

——— Neue Chrysomeliden aus Neu-Guinea. D. ent. Zs., Berlin, 1903, (335-336). [4827 ia 4831]. 517

——— Ueber die Gattung *Eubrachis* Baly. D. ent. Zs., Berlin, 1903, (356). [4831]. 518

——— Verbesserungen [betr. afrikan. Chrysomeliden, Arch. Natg., Berlin, 1903, I, 2]. D. ent. Zs., Berlin, 1903, (398). [4831]. 519

——— Synonymische Bemerkungen [betr. *Coccinellidae*]. D. ent. Zs., Berlin, 1903, (424). [4831]. 520

——— Afrikanische Chrysomeliden. Arch. Natg., Berlin, 69, Bd 1, 1903, (197-226). [4831 4827 ff]. 521

——— Coccinelliden. Bruxelles, Ann. Soc. ent. Belgique, 45, 1901, (91-96). [4827 eg 4831]. 522

——— Neue Coccinelliden. Bruxelles, Ann. Soc. ent. Belgique, 45, 1901, (273-286). [4831]. 523

Xambou. Mœurs et métamorphoses du *Magdalius aeternus*, coléoptère du groupe des Rhynchophores. Naturaliste, Paris, (sér. 2), 24, 1902, (271-272). [4815 4819 4831]. 524

——— Mœurs et métamorphoses de *Homalium rivulare* Payk, coléoptère du groupe des Brachélytres. Naturaliste, Paris, (sér. 2), 25, 1903, (55). [4815 4819 4831]. 525

Xambou. Mœurs et métamorphoses des coléoptères appartenant au groupe des Erythridae. Naturaliste, Paris, (sér. 2), 25, 1903, (91-92, 407). [4815 4819 4831]. 526

Zang, Richard. Vorläufige Diagnosen neuer indoaustralischer Passaliden. Insektenbörse, Leipzig, 20, 1903, (338-339). [4831]. 527

——— Bemerkungen zur älteren Passaliden-Litteratur. D. ent. Zs., Berlin, 1903, (417-420). [4831]. 528

## 4803 COMPREHENSIVE AND GENERAL WORKS.

### GENERAL.

Blackburn, T. . . . Notes on Australian coleoptera. Adelaide, S. Aust., Trans. R. Soc., 27, 1903, (91-182, 261-309).

Cameron, M. Coleoptera collected around Constantinople and Gulf of Ismid during the winter, 1901-1902. Ent. Mag., London, 39, 1903, (58-63).

Evans, W. Some more records of Coleoptera taken in Scotland chiefly in the Edinburgh and Forth district. Ann. Scot. Nat. Hist., Edinburgh, 1903, (89-99).

Imhof, O. Le nombre des coléoptères de la Suisse. Arch. Sci. Phys., Genève, (sér. 4), 16, 1903, (585).

Kerremans, Ch. Coleoptera sericornia fam. Buprestidae [deuxième et troisième parties]. In: Wytsman, Genera Insectorum, Bruxelles, 1903, (49-240). 25.60 fr. 4to.

Seldits, Georg. [Bericht über die wissenschaftl. Leistungen im Gebiete d. Entomologie 1901.] Coleoptera. Arch. Natg., Berlin, 68, Bd 2, H. 2, 1902, [1903], (45-284); D. ent. Zs., Berlin, 1902, H. 3, [1903], (45-284).

Voigts, Hans. Nicht *Zonabris* Har., sondern *Mylabris* Fabr.! Ein Beitrag zur Kritik der Geoffroy'schen Nomenklatur und zugleich Klarlegung des synonymischen Verhältnisses der Gattungsnamen *Bruchus*, *Laria*, *Mylabris*, *Ptinus* und *Zonabris*. Allg. Zs. Ent., Neudamm, 8, 1903, (234-239).

## TREATISES.

**Küster, H. C. und Kraatz, G.** Die Käfer Europas. Nach der Natur beschrieben. Fortgesetzt von J. Schilsky. H. 40. Nürnberg (Bauer & Raspe). 1903, (VIII + 270). 15 cm. 3 M.

## ECONOMICS.

**Burgess, A. F.** Economic notes on the family *Coccinellidae*. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., No. 40, 1903, (25-32).

**Fletcher, James.** Can the pea-weevil (*Bruchus pisi*) be exterminated? *l.c.* (69-74).

**Planta-Canova, P. C.** Revision der Verordnung ueber Vertilgung der Mäikäfer und Engerlinge. Volkswirtsch. Bl. Graubünden, Chur, 1903, No. 11, (1-2); No. 12, (1-2).

**Seelen, von.** Engerling - Vertilgung. *Zs. Forstw.*, Berlin, 35, 1903, (368-373).

## COLLECTIONS AND TECHNIQUE.

**Conlon, L.** Muséum d'Histoire naturelle d'Elbcnf. Catalogue de la collection de coléoptères longicornes d'Europe. Elbeuf, Bul. soc. etud. sci. nat., 20, 1901, [1902], (pagin. spec. 1-11).

**Sahlberg, John.** Demonstration einer Sammlung von Ingenieur Isaac Ericson in Mölndal angefertigter Photographien sehr kleiner Coleopteren. Helsingfors, Comptes rendus du Congrès des Naturalistes et Médecins du Nord tenu à Helsingfors du 7 au 12 Juillet, 1902, 1903, VI Section, (18-19).

——— Über Fang der Wasserkäfer und Verbreitung der Dytisciden in Finland. *l.c.* (26-32).

**Schenkling, Karl.** Taschenbuch für Käfersammler. 5. erweit. u. verb. Aufl. Leipzig (O. Leiner), [1903], (IV + 314 + XXIV, mit 13 Taf. nebst Erklärungen). 16 cm. Geb. 2,50 M.

## HISTORY.

**Kraatz, G.** Nekrolog [F. A. Clemens Müller]. *D. ent. Zs.*, Berlin, 1903, (173-174, mit Portr.).

## 4807 STRUCTURE.

## GENERAL.

**Bernhauer, Max.** Elfte Folge neuer Staphyliniden der paläarktischen Fauna, nebst Bemerkungen. Wien, Verh. ZoolBot. Ges., 52, 1902, (695-705).

**Chatanay, J.** Sur le *Carabus (Megodontus) violaceus*. Feuille jeunes natural., Paris, (sér. 4), 34, 1903, (37).

**Du Buysson, H.** *Apate capucina* L. *l.c.* (19).

**Florentin, R.** Sur le *Megodontus violaceus*. *l.c.* (18).

**Luz, Gottfried.** Revision der europäischen und sibirischen Arten der Staphyliniden - Gattungen *Tachyporus* und *Lamprinus* Heer. Wien, Verh. ZoolBot. Ges., 51, 1901, (146-185).

——— [ . . . *Anthophagus* . . . Uebersicht der paläarkt. Arten]. *l.c.* 52, 1902, (505-530).

**Schultze, August.** *Baris gudenovi* n. sp. *l.c.* 51, 1901, (212-215).

## SKELETAL STRUCTURE.

**Semenov, A. P.** Sur la structure et le rôle du pédoncule mésothoracique chez certains coléoptères. (Russ.) *Rev. Russ. Ent.*, Jaroslavl, 3, 1903, (85-88, av. 1 fig.).

## ALIMENTARY SYSTEM.

**Bordas, L.** L'appareil digestif des *Silphidae*. Paris, C.-R. Acad. sci., 137, 1903, (344-346).

## SPECIAL GLANDS.

**Glard, A.** Les glandes pygidienues des Carabides. Feuille jeunes natural., Paris, (sér. 4), 33, 1903, (222).

## REPRODUCTIVE ORGANS.

**Müller, Jos.** Ueber das Männchen von *Adoxus obscurus* L. *Zool. Anz.*, Leipzig, 27, 1903, (39-41).

**Petri, Karl.** Das Haftorgan von *Malthodes spathifer* Kiesw. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (410-412).

## SPECIAL EXTERNAL CHARACTERS.

**Kolbe, H. J.** Die Elytren der Coleopteren, speziell die Elytren in der Gattung *Tefflus*. Berlin, SitzBer. Ges. natf. Freunde, 1903, (225-237).

**Tower, W. L.** The origin and development of the wings of Coleoptera. Zool. Jahrb., Jena, Abt. f. Anat., 17, 1903, (517-572, mit 7 Taf.).

## COLOUR.

**Tower, William Lawrence.** The development of colors and color patterns of Coleoptera, with observations upon the development of color in other orders of insects [with bibliography]. Chicago, Ill., Dec. Pub. Univ. Chic., (ser. I), 10, 1903, ([31]-40, with pl.).

## 4811 PHYSIOLOGY.

**Dierckx, F.** Les glandes pygidiennes des coléoptères. Carabides (bombardiers, etc.), Passsides, Cicindélides, Staphylinides. Second mémoire. Louvain (A. Uystpruyt), Lierre (J. Van In et Cie), 1901, (758, av. 3 pls. hors texte). 4vo. 10 fr.

## 4815 DEVELOPMENT.

## GENERAL.

**Crawshaw, L. R.** On the life history of *Drilus flavesceus* Rossi. London, Trans. Ent. Soc., 1903, (39-52, pls. I, II).

## OVUM.

**Reichert, Alex.** Die Eier von *Sternocera sternicornis* L. Ent. Jahrb., Leipzig, 12, 1903, (174-175).

## EMBRYOLOGY.

**Brues, Charles Thomas.** A contribution to our knowledge of the *S'ylopidae*. Zool. Jahrb., Jena, Abt. f. Anat., 18, 1903, (241-270, mit 2 Taf.).

**Tower, W. L.** The origin and development of the wings of Coleoptera. l.c. 17, 1903, (517-572, mit 7 Taf.).

**Weise, J.** Bemerkungen über die ersten Entwicklungsstadien der *Coccinella conglobata* L. D. ent. Zs., Berlin, 1903, (164-166).

## METAMORPHOSIS AND LARVAL FORMS.

**Breed, Robert S.** The changes which occur in the muscles of a beetle, *Thymalus marginicollis* Chev., during metamorphosis. Cambridge, Mass., Bull. Mus. Comp. Zool. Harvard Coll., 40, 1903, (317-382, with pl.). (Cambridge, Mass., Cont. Zool. Lab. Mus. Comp. Zool. Harvard Coll., No. 145.) Separate. 24.5 cm.

**Darboux, (Gaston et Mingaud, Galien.** Les deux formes larvaires de *Larva oblecta* Say. Nimes, Bul. soc. étud. sci. nat., (n. sér.), 29, 1901, [1902], (25-29).

**Eichelbaum, F.** Die Larven von *Xylechinus pilosus* Rtzbg. und *Hylastes cunicularius* Er. Allg. Zs. Ent., Neudamm, 8, 1903, (60-70).

——— Larve und Puppe von *Omosita cocoon* L. l.c. (81-87).

**Mjöberg, Eric.** A hatching experiment. *Hadrotoma marginata* Payk. (Swedish) Entomol. Tidskr., Stockholm, 22, 1901, (189-190).

**Peyerimhoff, P. de.** Descriptions des larves de trois coléoptères exotiques. Paris, Ann. soc. ent., 71, (2<sup>e</sup> semest.), 1902, [1903], (710-718, av. fig.).

**Rosenberg, E. C.** Larvae of the groups Lebiini and Odacanthini and the genera *Lebia* and *Odacantha*. (Danish with an English summary) København, Ent. Medd., (Ser. 2), 2, 1903, (1-21, 1 pl.).

**Xambou, Mœurs et métamorphoses** du *Magdalis aterrimus*, coléoptère du groupe des Rhynchophores. Naturaliste, Paris, (sér. 2), 24, 1902, (271-272).

——— Mœurs et métamorphoses de l'*Hamalium rivulare* Payk, coléoptère du groupe des Brachélytres. l.c. 25, 1903, (55).

——— Mœurs et métamorphoses des coléoptères appartenant au groupe des Erotylides. l.c. (91-92, 407).

## POSTEMBRYONIC ONTOGENY.

**Pomerancev, D[mitrij Vladimirovič].** Beitrag zur Kenntnis der auf der Fichte



(*Picea excelsa*) lebenden schädlichen und nützlichen Insecten. (Russ.) St. Petersburg, Izv. Lén. Inst., **8**, 1902, (3-25, mit 1 Taf.).

**Schreiner**, J. A. F. Über den Mais-Roskäfer (*Pentodon monodon* Fabr.). (Russ.) Trd. B. entom. Učen. Kom. M. Zeml., St. Petersburg, **III**, No. 9, 1902, (11, mit 3 Fig.).

**Silantjev**, A. A. Der punktbäuchige Hohlrüssler (*Cleonus punctiventris* Germ.) und andere Rüsselkäfer, welche der Zuckerrübe in Russland schädlich werden. St. Petersburg, 1903, (167, mit 28 Fig. u. 1 Taf.). 23 cm. (0.50 Rub.).

**Tower**, W. L. The origin and development of the wings of Coleoptera. Zool. Jahrb., Jena, Abt. f. Anat., **17**, 1903, (517-572, mit 7 Taf.).

## 4819

## ETHOLOGY.

## GENERAL.

**Chapman**, T. A. A contribution to the life history of *Orina* (*Chrysocloa*) *tristis* Fabr., var. *amaragdina* Weise. London, Trans. Ent. Soc., **1903**, (245-261, pls. IX, X).

**Crawshaw**, L. R. On the life history of *Drilus flavescens* Rossi. l.c. (39-52, pls. I, II).

**Dauphin**, L. C. Réponse à M. J. A. Clermont. Echange, Lyon, **19**, 1903, (93-95).

**Du Buysson**, H. *Apate capucina* L. Feuille jeunes natural., Paris, (sér. 4), **34**, (19).

**Dufour**, J. Pyrale et gribouri (*Eumolpe*). Chron. Agric., Lausanne, **15**, 1902, (459-462, 2 fig.).

**Enock**, F. The life history of *Cicindela campestris*. London, Proc. Ent. Soc., **1903**, (XV-XIX).

**Faas**, H[enri]. Pluie de chenilles (larves de Téléphores). Arch. Sci. Phys., Genève, (sér. 4), **16**, 1903, (239).

**Forel**, F. A. Pluie de chenilles. Lausanne, Bul. Soc. Sci. Nat., (sér. 4), **39**, 1903, (XXXIX-XL); Arch. Sci. Phys., Genève, (sér. 4), **16**, 1903, (347-348).

**Glard**, A. *Bradycellus distinctus*. [Réponse partielle à la question de M. F. Picard]. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (84).

——— *Sympiezocera laurasi* Lucas. l.c. (203).

**Girardeau**, H. *Apate capucina*. l.c. (223).

**Godon**, J. *Lytta vesicatoria* Linn. l.c. (50).

**Holtz**, Martin. Laufkäfer und Skorpiene. Insektenbörse, Leipzig, **20**, 1903, (339).

**Ichas**, Lucien. Un insecte géomètre. [*Rhynchites betulae*. Extrait d'un travail de Hermann Muckermann dans *Scientific American*]. Nature, Paris, **30**, (2<sup>e</sup> sem.), 1902, (180-183, av. fig.).

**Kunstler**, J. Observations sur le *Calendra orizae*. Bordeaux, Actes soc. linn., (sér. 6), **57**, 1902, (17-27).

**Lampa**, Sven. The potato beetle in Europe again. (Swedish.) Entomol. Tidskr., Stockholm, **22**, 1901, (170-174).

**Lavagne**, H. Note sur *Caenoptera marmottani* Bris. Echange, Lyon, **17**, 1902, (85-86).

**Lemo**, P. *Bostrychus capucinus* L. Feuille jeunes natural., Paris, (sér. 4), **34**, 1903, (38).

**Foujade**, G. A. Nouvelle note sur l'*Hydrophilus piceus*. Paris, Bul. soc. ent., **1902**, (238).

**Silantjev**, A. A. Der punktbäuchige Hohlrüssler (*Cleonus punctiventris* Germ.) und einige andere Rüsselkäfer, welche der Zuckerrübe in Russland schädlich werden, ihre Beschreibung, Lebensweise und Bekämpfung. St. Petersburg, 1903, (167, mit 28 Fig. u. 1 Taf.). 23 cm. (0.50 Rub.).

**Vaucher**, A. Note sur *Taragama* (*Megasoma*) *repanda*. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (52).

**Viturat**, abbé. Relation sur la capture de *Phosphaenus hemipterus* Goeze. Echange, Lyon, **17**, 1902, (69-70).

## HABITS.

**Champion**, G. C. Some notes on the habits of *Nanophyes durieni* Lucas, as observed in Central Spain, with a

description of the larva and pupa by Dr. T. A. Chapman. London, Trans. Ent. Soc., 1903, (87-91, pl. V.).

**Ohltenden**, F[rank] H[urlbut]. The palm and palmetto weevils. [*Rhynchophorus palmarum* and *R. cruentatus*.] Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. 38, 1902, (23-28).

—— The leaf-mining locust beetle [*Odontota dorsalis*], with notes on related species. *I.c.* (70-90).

**Olermont**, J. A. Deux mots sur les mœurs d'*Apion pisi* Fab. Echange, Lyon, 17, 1902, (83).

**Leonhardt**, Wilh. Ueber das massenhafte Auftreten von Coccinelliden im Alten Lande im Winter 1901-02. Aus d. Heimat, Bremerhaven, 1901-02, 1903, (53-54).

**Mitchell**, J. D. Observations on the habits of two *Cicindelidae*. [*Tetracha carolina* and *Cicindela rectilatera*.] Washington, D.C., Proc. Ent. Soc., 5, 1903, (108-110).

**Semenov**, A. P. Sur la chasse, au printemps, de quelques coléoptères caractéristiques pour la Russie d'Europe. II. (Russ.) Rev. Russ. Ent., Jaroslavl, 3, 1903, (154-155).

**Stebbing**, E. P. Insect pests of the sugar cane in India. [*Haplosomyx elongatus*, Baly; *Leptispa pygmaea*, Baly; *Xyleborus*.] Calcutta, Ind. Mus. Notes, 5, 1903, (72-81).

**Suvorov**, G. L. Notiz über *Clytus popovi* Maunerk. (Russ.). St. Petersburg, Hor. Soc. Ent. Ross., 36, 1903, (XXXII).

**Xambou**. Mœurs et métamorphoses du *Magdalis aterrimus*, coléoptère du groupe des Rhynchophores. Naturaliste, Paris, (sér. 2), 24, 1902, (271-272).

—— Mœurs et métamorphoses de l'*Homalium rifulare* Payk, coléoptère du groupe des Brachélytres. *I.c.* 25, 1903, (55).

—— Mœurs et métamorphoses des coléoptères appartenant au groupe des Erotylides. *I.c.* (91-92, 407).

## PARENTAL RELATIONS.

**Nielsen**, J. C. Zur Lebensgeschichte des Haselbockkäfers (*Obreia linearis* Fabr.). Zool. Jahrb., Jena, Abt. f. Syst., 18, 1903, (659-664, mit 1 Taf.).

## OVIPOSITION.

**Donisthorpe**. Oviposition in *Labiostomes tridentata*. Ent. Mag., London, 39, 1903, (205).

**Pomerancev**, Dm. *Scolytus carpin* Rtz. gefunden auf dem Haselnussstrauch (*Corylus avellana* L.) (Russ.) St. Petersburg, Hor. Soc. Ent. Ross., 36, 1903, (118-124, Taf. I).

## SOUND PRODUCTION.

**Verhoeff**, Karl W. Ueber die zusammengesetzte Zirpvorrichtung von *Geotrupes*. Berlin, SitzBer. Ges. natf. Freunde, 1902, (149-155).

## HABITAT.

**Brett**, Josef. Ein neuer Höhlenkäfer aus Bosnien (*Leonhardia reitteri* n. sp.). Soc. Entomol., Zürich, 17, 1902.

**Viehmeyer**, H. Kellerebewohner. Ent. Jahrb., Leipzig, 12, 1903, (255-256).

## SYMBIOSIS.

**Oseraki**, Stanislaw. Nouvelles recherches sur la myrmécophilie. (Polonais) Wszechświat, Warszawa, 22, 1903, (308-311).

**Donisthorpe**. [Myrmecophilous Coleoptera]. Ent. Rec., London, 15, 1903, (11-12).

**Kolbe**, H. J. Myrmekophile Insekten, speciell *Thorictus foreli* Wasm. Berlin, SitzBer. Ges. natf. Freunde, 1903, (237-253).

**Rivers**, J. J. Myrmecophilous Coleoptera or ant-loving beetles. Los Angeles, Bull. So. Cal. Acad. Sci., 1, 1902, (71).

**Scriba**, E. *Velleius dilatatus* F. Insektenbörse, Leipzig, 20, 1903, (212).

**Wasmann**, E. Coléoptères myrmécophiles recueillis par M. le professeur A. Lameere en Algérie. Bruxelles, Ann. Soc. ent. Belgique, 46, 1902, (159).

## PARASITISM.

Parasitisme des Triangulins dans les nids de Mellifères. Feuille jeunes natural., Paris, (sér. 4), **33**, 1902, (13-14), [d'après Green, Ern. On some Parasites of *Xylocopa tenuiscapa*. Ent. Mag., London, 1902, (232-233)].

Brues, Charles Thomas. A contribution to our knowledge of the *Stylopidae*. Zool. Jahrb., Jena, Abt. f. Anat., **18**, 1903, (241-270, mit 2 Taf.).

Kulwiec, K. Parasites des insectes. (Polonais) Wszeczeństw, Warszawa, **22**, 1903, (213-217, 276-279).

Murfeldt, Mary E. Another Yucca-feeding insect [*Carpophilus melanoplerus*]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., Amer. Ent. Soc., **14**, 1903, (293-295).

Perraudière, R. de la. Note sur *Orocobus fasciatus* Vill.—*bifasciatus* Ol. et ses parasites. Paris, Bul. soc. ent., **1902**, (251-253).

Pierre, abbé. Sur l'évolution de *Lixus iridis* Oliv. et de Chalcidides parasites de l'œuf, de la larve et de l'imago. Exchange, Lyon, **19**, 1903, (108-110, 116-117, 132-133, 141-144).

Sharp, D. A. Coleopterous insect embedded in the wall of the human intestine. Cambridge, Proc. Phil. Soc., **12**, 1903, (199, 200).

Vaney, C. et Conte, A. Sur un diptère (*Degeeria funebris* Meg.) parasite de l'altise de la vigne (*Haltica ampelophaga* Guer.). Paris, C.-R. Acad. sci., **136**, 1903, (1275-1276).

## DEFENSIVE PROCESSES.

Dahl, Friedr. Täuschende Aehnlichkeit zwischen einer deutschen Springspinne (*Ballus depressus*) und einem am gleichen Orte vorkommenden Russelkäfer (*Strophosomus capitatus*). Berlin, SitzBer. Ges. natf. Freunde, **1903**, (273-278).

Kerremans, C. Considerations sur les Buprestides. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (165-173).

Wasmann, E[rich]. Zum Mimicry-typus der Dorylinengäste. (135. Beitrag zur Kenntnis der Myrmecophilen und Termitophilen.) Zool. Anz., Leipzig, **26**, 1903, (581-590).

## UTILITY AND HARMFULNESS.

. . . Borkenkäfer in den Obstbäumen. Schweiz.-Bauer, Bern, **56**, 1902, No. 18, (1-2). [4831].

. . . Engerlingsschaden. l.c. **57**, 1903, No. 55, (2). [4831].

. . . Maikäfer und Engerlinge. (Flugjahre.) l.c. No. 31, (2); No. 32, (2); No. 33, (1-2). [4831].

Ausoux. Observations sur une apparition de cantharides. Elbeuf, Bul. soc. étud. sci. nat., **20**, 1901, [1902], (42).

Barbey, Auguste. Ravages des bostiches dans les vergers de la vallée du Rhône. Journ. Soc. Agric. Suisse Rom., Lausanne, **43**, 1902, (139-157, 163-179, 2 pls.).

Boden. Beschädigung der jungen Kiefern kulturen durch wurzelbrütende Hylesinen im akademischen Lehrrevier Freienwalde a. O. Zs. Forstw. Berlin, **35**, 1903, (551-554).

Chittenden, F[rank] H[urlbut]. The tobacco stalk weevil (*Trichobaris mucorea* Lec.). Washington, D.C., Bull. U. S. Dept. Agric., Div. Ent. (N. Ser.), No. **38**, 1902, (66-70).

Notes on the larger sugar-beet leaf-beetle. (*Monoxia puncticollis* Say.) l.c. No. **40**, 1903, (111-113).

Cordley, A. B. [Note on injury to apple trees by *Xyleborus dispar*]. Agric. Exp. Sta., Oregon, Corvallis, Rep., **1902**, (60-61).

Fernald, H[enry] T[orrey]. The imported elm-leaf beetle [*Galerucella luteola*]. Agric. Exp. Sta., Massachusetts, Amhers. Bull. No. **76**, 1901, (8, with 1 fig.). 23 cm. [Review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta. Rec., **13**, 1902, (575).

Froggatt, Walter W. Some wood-boring beetles and their habits. Agric. Gaz., Sydney, N.S.W., **14**, 1903, (414-417, with 1 pl.).

Giard, A. Une altise nuisible aux semis de betteraves (*Chaetochema tibialis* Illig.). Feuille jeunes natural., Paris, (sér. 4), **34**, 1903, (13-14).

Held, A. (Feind der Obstbäume, Prachtkäfer.) Schweiz.-Bauer, Bern, **56**, No. 76, 1902, (5).

**Lefebvre, A.** Résumé d'un mémoire de M. Louis Bureau, directeur du Muséum de Nantes, sur le *Lyctus canaliculatus* (Fabricius) et les ravages qu'il fit dans les parquets et autres bois ouvrés (mœurs, expertises, jugements). (In Nantes, Bul. soc. sci. nat., **10**, (2<sup>e</sup> semest.), 1900). Elbeuf, Bul. soc. sci. nat., **20**, 1901, [1902], (43-46).

**Mazarakij, V. V.** Ueber den Erbsenkäfer (*Bruchus pisi* L.). (Russ.) St. Petersburg, Hor. Soc. Ent. Ross., **36**, 1903, (CI-CIII).

**Mollandin du Boissy, R.** Les dégâts causés en France par deux espèces de *Capnodis*. Interméd. Bombycult., Paris, **3**, 1903, (36-39).

**Nicéville, Lionel de (the late).** Insect pests of forest trees. *Baridius* sp., *Sinoxylon crassum*, Leane. Calcutta, Ind. Mus. Notes, **5**, 1903, (103-117, with pls.).

——— Insect pests of fruit trees. *l.c.* (117-127).

——— Insect pests of plants. *l.c.* (127-130, with pls.).

——— Insect pests of vegetables. *l.c.* (133-134, with pls.).

——— Insect pests of cereals and crops. *l.c.* (134-143).

——— Insect pests of indigo. *l.c.* (144-164, with pls.).

——— Insect pests of the sugar cane. *l.c.* (164-182).

——— Insect pests of tea. *l.c.* (185-189).

**Pomerancev, Dm.** Notes biologiques sur les coléoptères vivant sous les écorces et utiles dans la sylviculture. IV. (Russ.) Russ., Ent., Jaroslavl, **3**, 1903, (22-24).

——— Notes biologiques sur les coléoptères vivant sous les écorces et utiles dans la sylviculture. V. Fam. *Histeridae*. (Russ.) *l.c.* (77-78).

——— Notes biologiques sur les coléoptères vivant sous les écorces et utiles dans la sylviculture. VI. Fam. *Cleridae*. (Russ.) *l.c.* (200-202).

——— Beitrag zur Kenntnis der auf der Fichte (*Picea excelsa*) lebenden schädlichen und nützlichen Insecten. (Russ.) St. Petersburg, Izv. Lésn. Inst., **8**, 1902, (3-25, mit 1 Taf.).

**Schreiner, J. F.** Ueber den Mais-Roskäfer (*Pentodon monodon* F.). (Russ.) Trd. B. entom. Učen. Kom. M. Zeml., St. Petersburg, **III**, No. 9, 1902, (11, mit 3 Fig.).

——— Der Rebenschneider (*Lethrus apterus* Walk.) und die Mittel zu dessen Bekämpfung. (Eine landwirthschaftliche Monographie.) (Russ.) *l.c.* **IV**, No. 1, 1903, (45, mit 10 Fig. u. 1 Taf.).

**Sempolowaki, A.** Un nouveau coléoptère [*Notoxus monoceros* L.] dévastant les betteraves. (Polonais) Gaz. roln., Warszawa, **43**, 1903, (281-282).

**Sondermann, R.** Ueber einen Rüssel- und einige Borkenkäfer, die sich in neuerer Zeit im Regierungsbezirk Stade an Nadel- und Obstbäumen besonders schädlich erwiesen haben. Aus d. Heimat, Bremerhaven, **1901-02**, 1903, (38-10).

#### 4823 VARIATION AND ÆTIOLOGY.

**Keys.** Black variety of *Carabus nemoralis*. Ent. Mag., London, **39**, 1903, (174).

**Peyerimhoff, P. de.** Sur la méthode dans les recherches de phylogénie entomologique. Feuille jeunes natural., Paris, (sér. 4), **33**, (89-95).

**Sharp, D.** *Helicopriss monhotus* and *H. dominus*. Fascic. Malay. Zool., **2**, (281-287).

——— Coleoptera. III. Coleoptera Caraboidea. Fauna Hawaiiensis, **III**, (175-292, pls. VI, VII); [summary], Entomologist, London, **36**, 1903, (263).

#### SUBSTANTIVE VARIATION.

**Kolbe, H. J.** Ueber den einseitigen Polymorphismus im männlichen Geschlecht der Lucaniden. Ein kurzer Entwurf. Insektenbörse, Leipzig, **20**, 1903, (43-45).

**Schneider, O.** Ueber Melanismus korsischer Käfer. Dresden, Sitzber. Isis, **1902**, 1903, (43-60).

## 4827 GEOGRAPHICAL DISTRIBUTION.

## a THE EARTH AS A WHOLE.

**Giard, A.** *Sympiezocera laurasi* Lucas. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (203).

**Janson, O. E.** On the genus *Theodosia* and other eastern *Goliathides*, with descriptions of some new species. London, Trans. Ent. Soc., **1903**, (303-310).

**Pic, Maurice.** Contribution à l'étude générale des *Ilyophilidae*. Paris, Ann. soc. ent., **72**, 1903, (65-107).

**Schultze, A.** Zum Verzeichniss der paläarktischen Ceuthorrhynchinen. (D. Ent. Zs., Berlin, **1902**, (205-226); *l.c.* **1903**, (287-291).

## d EUROPE.

**Lavagne, H.** Note sur *Caenoptera marmottani* Bris. Echange, Lyon, **17**, 1902, (85-86).

**Pic, M.** Nouvelles espèces et variétés de Coléoptères paléarctiques. *l.c.* (33-35, 79-80).

Coléoptères présumés nouveaux de la faune circumméditerranéenne. *l.c.* (63-65).

Nouveaux coléoptères d'Europe. *l.c.* (115).

**Stierlin, G.** Beschreibung einiger neuen Species von Coleopteren. Schaffhausen Mitt. Schweiz. Entomol. Ges., **10**, 1902, (425-427).

## da SCANDINAVIA.

**Engelhardt, Chr.** The Danish species of the genus *Apion*, Herbst. (Danish) Kjöbenhavn, Ent. Medd., (Ser. 2), **2**, 1903, (115-179).

**Johansen, Joh. P.** On the discovery of several Coleoptera new to Denmark and of some known, but rare, species. (Danish) Kjöbenhavn, Ent. Medd., (Ser. 2), **2**, 1903, (180-187).

**Mjöberg, Eric.** Rare Coleoptera. I. From the environs of Stockholm. (Swedish) Entomol. Tidskr., Stockholm, **22**, 1901, (191-192).

**Münster, Ths.** New Coleoptera from Norway. (Norw.) Nyt Mag. Naturv., Kristiania, **41**, 1903, (255-256).

**Roman, A[bruham].** *Hapalus bimaiculatus* L. found in Sweden. Entomol. Tidskr., Stockholm, **22**, 1901, (166).

**Schneider, J. Sparre.** Coleoptera gathered by Embr. Strand in the southern part of Nordlands Amt and in Lofoten and Vesteraalen in 1899 and 1900. (Norw.) Trondhjem, kgl. Vid. selsk. Skr., **1902**, No. 1, 1903, (30).

**Sharp, D.** On some Coleoptera from the Faröe Islands. Ent. Mag., London, **39**, 1903, (249-250).

**Stierlin, G.** Beschreibung von zwei neuen europäischen Rüsselkäfern. Mitt. Schweiz. Entomol. Ges., **10**, 1903, (483-484); **11**, 1903, (56-57).

**Strand, Embr.** Rhynchophora found in Norway. (Norw.) Kristiania, Forh. Vid. selsk., **1903**, No. 2, (14).

Staphylinids and Apions, new for the Norwegian fauna. (Norw.) Entomol. Tidskr., Stockholm, **22**, 1901, (143).

## db RUSSIA IN EUROPE.

**Baeckmann, Jul. J.** Ueber Coleoptera, welche auf dem Gute Ploskoje im Kreise Luga gesammelt wurden und die neu oder interessant für die St. Peterburger Käferfauna sind. (Russ.) St. Petersburg, Hor. Soc. Ent. Ross., **36**, 1903, (CXXIII-CXXVII).

**Cloërin, T.** Species transcaucasica nova generis *Platysma* (Bon.) Tsch. Rev. Russ. Ent., Jaroslavl, **3**, 1903, (24-25).

Species caucasica nova generis *Platysma* (Bon.) Tsch. *l.c.* (104-108).

Observations sur quelques Cicindélides de la collection Semenov. St. Petersburg, Hor. Soc. Ent. Ross., **36**, 1903, (90-107).

**Jacobson, G. G.** Localités de quelques coléoptères présentant un certain intérêt II. (Russ.) St. Petersburg, Ann. Mus. zool. Ac. Sc., **8**, 1903, (XXII-XXIV).

Interessante Neuheiten für die St. Peterburger Coleopteren-

fauna. II, III. (Russ.) St. Peterburg, Hor. Soc. Ent. Ross., **36**, 1903, (CXVIII-CXIX, CXXI-CXXIII).

Jakovlev, V. E. Un nouveau *Pentodon* de la Transcasie. Rev. Russ. Ent., Jaroslavl, **3**, 1903, (17-18).

Masarakij, V. V. Zur Insectenfauna des St. Peterburger Gouvernements. (Russ.) St. Peterburg, Hor. Soc. Ent. Ross., **36**, 1903, (X-XXIV).

Excursionen in der Umgebung St. Peterburgs im Frühling 1902. (Russ.) l.c. (CXIV-CXVIII).

Ueber die am meisten interessanten Coleopteren, welche im Gouv. St. Peterburg (excl. Luga-Kreis) im Laufe der letzten Jahre (1900 incl.) gefunden wurden. (Russ.) l.c. (CXXVIII-CXLII).

*Dromius cordicollis* Vorbrg. und *Aegialia rufa* Fbr., zwei für das Gouv. St. Peterburg neue Arten. (Russ.) l.c. (CLVI-CLX).

Norman, A. M. Notes on the natural history of East Finmark. [Coleoptera] Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (166-173).

Sahlberg, John. Über Fang der Wasserkäfer und Verbreitung der Dytisciden in Finland. Helsingfors, Comptes rendus du Congrès des Naturalistes et Médecins du Nord tenu à Helsingfors du 7 au 12 juillet 1902, **1903**, VI Section, (26-32).

Schultze, August. Genoris *Ceuthorhynchi* species novae rossicae et transcasicae. St. Peterburg, Hor. Soc. Ent. Ross., **36**, 1903, (65-89).

Semenov, A. P. Coléoptères nouveaux pour la faune de la Russie IV. (Russ.) Rev. Russ. Ent., Jaroslavl, **3**, 1903, (401-403).

#### de GERMAN EMPIRE.

Gerhardt, J. Neuheiten der schlesischen Käferfauna aus dem Jahre 1902. D. ent. Zs., Berlin, **1903**, (237).

Gresser, Franz Joseph. Nachtrag zum Verzeichnis der in Württemberg aufgefundenen Käfer. Stuttgart, Jahreshefte Ver. Natk., **59**, 1903, (325-327).

Heydenreich, E. Ueber einige seltenere Käfer Schlesiens. Insektenbörse, Leipzig, **20**, 1903, (29).

Meunier, F. Ueber einige Coleopteren-Flügeldecken aus der präglacialen Braunkohle und dem interglacialen Torflager von Lauenburg (Elbe). Berlin, Jahrb. geol. Landesant., **21**, 1901, Abh. auss. St. Pers., (31-38).

Pohl, Robert. Eine Käferernte. Aus d. Heimat, Stuttgart, **15**, 1902, (48-53).

Prediger, G[eorg]. Zoogeographisches aus Thüringen. Insektenbörse, Leipzig, **20**, 1903, (220).

Zoogeographisches aus Südhüringen. l.c. (356-357).

Scholz, Richard. Eine kleine Käferausbeute aus Gastein. l.c. (140).

#### de HOLLAND.

Everts, Ed. Die Käfer von Niederland und dem angrenzenden Gebiete. (Holländisch) Vol. 2, Lief 2. 's Gravenhage (Mart. Nijhoff), 1903, (401-796, 8 Taf.). 27 cm.

#### de BRITISH ISLANDS.

Bouskell, F. *Aphodius sturmi* Harold: a British insect. Ent. Rec., London, **15**, 1903, (92).

*Tetropium castaneum* L., a species of longicorn Coleoptera new to Britain. l.c. (288).

Chaster, G. W. Two beetles from Roundstone, new to the Irish list. Irish Nat., Dublin, **12**, 1903, (167).

Chitty, A. J. *Hydroporus bilineatus* Sturm. An addition to the British list. Ent. Mag., London, **39**, 1903, (143).

Donisthorpe. *Aphanisticus emarginatus* F.: a species of Coleoptera new to Britain. Ent. Rec., London, **15**, 1903, (265).

Coleoptera in South Kerry. Irish Nat., Dublin, **12**, 1903, (69).

Edwards, J. On the occurrence in Norfolk of *Oedemera tircenscens* Linn., a species not hitherto recorded as British. Ent. Mag., London, **39**, 1903, (64-65).

Ellis, H. W. *Criocephalus polonicus* Motsch., a genus and species of longicorn Coleoptera new to Britain. Ent. Rec., London, **15**, 1903, (259-261).

**Evans, W.** Some more records of Coleoptera taken in Scotland chiefly in the Edinburgh and Forth district. *Ann. Scot. Nat. Hist.*, Edinburgh, **1903**, (89-99).

**Janson, O. E.** *Pentaphyllus testaceus* Hellwig, an unrecorded addition to the British Coleoptera. *Ent. Rec.*, London, **15**, 1903, (128).

**Keys, J. H.** Some northern and hill-country Coleoptera of the Plymouth district. *Plymouth, Rep. Inst.*, **13**, 1903, (239-245).

**Sharp, D.** *Tetropium fuscum* Fabr., a genus and species of Longicorn Coleoptera new to Britain. *Ent. Mag.*, London, **39**, 1903, (198-199).

#### df FRANCE.

Liste analytique illustré des genres des coléoptères de France. Série scarabéidienne. *Naturaliste*, Paris, (sér. 2), **24**, 1902, (220, 277-278). [4831].

**Dupont, L.** Insectes du Jardin (Mont-Blanc). Elbeuf, *Bul. soc. étud. sci. nat.*, **20**, 1901, [1902], (41).

**Giard, A.** *Bradycellus distinctus*. [Réponse partielle à la question de M. F. Picard]. *Feuille jeunes natural.*, Paris, (sér. 4), **33**, 1903, (81).

**Marchal, C.** Sur quelques coléoptères peu connus ou nouveaux pour Saône-et-Loire. Autun, *Bul. soc. sci. nat.*, **15**, 1902, (Proc. verb. 263-265).

**Méquignon, Auguste.** Capture de coléoptères nouveaux pour le bassin de la Seine. Paris, *Bul. soc. ent.*, **1902**, (238-239).

**Peyerimhoff, P. de.** Coléoptères nouveaux pour la faune française. Description d'une espèce inédite. *l.c.* (246-247).

**Pic, M.** Coléoptères intéressants, rares ou nouveaux pour la faune française. Echange, Lyon, **17**, 1902, (46-51).

——— Sur quelques *Rhagonychu* de France. *l.c.* (53-57).

——— Quelques coléoptères rares ou nouveaux pour la faune gallo-rhéenne. *l.c.* **19**, 1903, (153-155).

——— Nouvel habitat de *Cebrio gigas* F. *l.c.* (184).

**Picard, F.** Observations coléoptérologiques. *Acilius canaliculatus*.—*Bradycellus distinctus*. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (64).

**Quittard, J.** Contribution à la faune des coléoptères du département du Puy-de-Dôme, principalement des environs de Riom (supplément). Echange, Lyon, **19**, 1903, (160, 165-166, 173).

**Sainte-Claire-Deville, J.** Etude sur divers *Platysma* des Alpes occidentales. Paris, *Ann. soc. ent.*, **71**, (2<sup>e</sup> semest.), 1902, (588-619).

——— Contribution à la faune du bassin de la Seine. Paris, *Bul. soc. ent.*, **1902**, (247-250).

——— Remarques sur les *Hydrophilidae* de la faune française. Echange, Lyon, **17**, 1902, (75-78, 83-85); **19**, 1903, (103-104, 111-112).

**Schneider, O.** Ueber Melanismus korsischer Käfer. Dresden, *SitzBer. Isis*, **1902**, 1903, (43-60).

**Viturat, abbé.** Catalogue des coléoptères du département de Saône-et-Loire. Echange, Lyon, **17**, 1902, (1-16, pagin. spéc.), (1-28, pagin. spéc.); **19**, 1903, (20-54, pagin. spéc.).

#### dg SPAIN AND PORTUGAL.

**Champion, G. C.** An entomological excursion to Bejar, Central Spain. London, *Trans. Ent. Soc.*, **1903**, (165-182).

**Lauffer, G.** Vorläufige Diagnose eines neuen spanischen *Dorcadion*. *Soc. Entomol.*, Zürich, **17**, 1902, (105).

#### dh ITALY.

**Breit, Josef.** *Choleva doderoi* n. sp. *Soc. Entomol.*, Zürich, **17**, 1903, (169).

**Sahlberg, John.** Ad cognitionem faunae Coleopterorum Italicae fragmenta. Helsingfors, *Ofvers. F. Vet. Soc.*, **46**, [No. 13], 1902-1903, (1-14).

#### di SWITZERLAND.

**Dupont, L.** Insectes du jardin (Mont Blanc). Elbeuf, *Bul. soc. étud. sci. nat.*, **20**, 1901, [1902], (41).

**Imhof, O.** Le nombre des coléoptères de la Suisse. Arch. Sci. Phys., Genève, (sér. 4), **16**, 1903, (585).

**Mory, Claude.** Liste der 1898 im Jouxthal gesammelten Coleopteren. Schaffhausen, Mitt. Schweiz. Entomol. Ges., **10**, 1903, (469-473).

#### dk AUSTRIA-HUNGARY.

**Breit, Josef.** Ein neuer Höhlenkäfer aus Bosnien (*Leonhardia reitteri* n. sp.). Soc. Entomol., Zürich, **17**, 1902, (89).

**Osiki, E.** Die Histeriden Ungarns (Ungarisch) Allatt. Közlem., Budapest, **2**, 1903, (220-232).

——— Coleoptera nova ex Hungaria. (Ungarisch und Lateinisch) Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., **1**, 1903, (441-446).

——— Die Cicindeliden Ungarns. Math.-natw. Ber. Ungarn, Leipzig, **18**, (1900), 1903, (121-144).

**Holdhaus, Karl.** Ergebnisse einer coleopterologischen Reise in den Kärntner Alpen im Sommer 1900. Carinthia II, Klagenfurt, **91**, 1901, (11-19).

——— und **Prossen, Theodor.** Verzeichniss der bisher in Kärnten beobachteten Käfer. (Fortsetzung) l.c. (56-63, 92-106, 164-172, 199-217); **92**, 1902, (158-177).

**Hormusaki, Constantiu** *Freiherr* v[on]. Neue Coleopterenfunde aus der Bukowina. Wien, Verh. ZoolBot. Ges., **51**, 1901, (356-361).

**Klimsch, Edgar.** Die Käfer des oberen Metnitztales. Carinthia II, Klagenfurt, **93**, 1903, (67-86).

**Komnicki, Jaroslaw L. M.** Les formes du *Notiophilus aquaticus* L. de la Galicie. (Polonais) Kosmos, Lwów, **28**, 1903, (105-114).

**Komnicki, S. M[aryan].** Sur la faune de Léopol et de ses environs. I. Coleoptera. II. Partie. (Polonais) Kraków, Spraw. Kom. fizyogr., **37**, 1903, (31-56).

**Müller, Josef.** *Lucanillae* et *Scarabaeidae* Dalmatiae. Wien, Verh. ZoolBot. Ges., **52**, 1902, (438-466).

(N 2-9053)

**Rybiński, M.** Coléoptères nouveaux pour la faune de la Galicie. II Liste. (Polonais) Kraków, Spraw. Kom. fizyogr., **37**, 1903, (15-30).

——— Coléoptères trouvés en Podolie galicienne, entre Złoczów et Podwołoczyska, en 1887 - 1890. (Polonais) l.c. (57-175).

**Scholz, Richard.** Im Nebel und Regen. Insektenbörse, Leipzig, **20**, 1903, (19-20, 26-28).

#### dl BALKAN PENINSULA.

**Cameron, M.** Coleoptera collected around Constantinople and Gulf of Ismid during the winter, 1901-1902. Ent. Mag., London, **39**, 1903, (58-63).

**Sahlberg, J.** Ad cognitionem faunae Coleopterorum Graecae fragmenta. [No. 12], l.c. (1-9).

——— [Entomologische Forschungsreisen in den Mittelmeergegenden und Central-Asien]. (Schwedisch) [No. 9], l.c. (1-34); [No. 17] (1-38).

#### dm MEDITERRANEAN AND ISLANDS.

**Sahlberg, John.** Messias hiemalis Coleopterorum Corcyraeorum. Helsingfors, Öfvers. F. Vet. Soc., **45**, [No. 11], 1902-1903, (1-84).

——— Entomologische Forschungsreisen in den Mittelmeergegenden und Central-Asien. (Schwedisch). Helsingfors, Öfvers. F. Vet. Soc., **45**, [No. 9], 1902-1903, (1-34); [No. 17], (1-38).

#### e ASIA.

**Ölsöerlin, T.** Observations sur quelques Cicindélides de la collection Semenov. St. Peterburg, Hor. Soc. Ent. Ross., **36**, 1903, (90-107).

——— Species asiatica nova generis *Leistus* Fröl. Rev. Russ. Ent., Jaroslavl, **3**, 1903, (109).

**Pic, M.** Coléoptères nouveaux d'Asie et d'Afrique. Echange, Lyon, **19**, 1903, (119-120).



## ea ASIATIC RUSSIA.

**Jacobson, G. G.** Coleoptera Mandshuriae meridionalis et peninsulae Quantungensis ab A. N. Gudzenko allata. (Russ.) St. Petersburg, Ann. Mus. zool. Ac. Sc., **8**, 1903, (XI-XVI).

Localités de quelques coléoptères présentant un certain intérêt II. (Russ.) l.c. (XXII-XXIV).

**Schultze, August.** Generis *Ceuthorhynchi* species novae rossicae et transcaspiae. St. Petersburg, Hor. Soc. Ent. Ross., **36**, 1903, (85-89).

**Semenov, A. P.** Coleoptera nova faunae turanicae. Rev. Russ. Ent., Jaroslavl, **3**, 1903, (8-13, 353-357).

Coléoptères nouveaux pour la faune de la Russie. IV. (Russ.) l.c. (401-403).

## eb CHINA AND DEPENDENCIES.

**Öclérin, T.** Species tibetanae nova generis *Platysma* (Bon.) Tsch. Rev. Russ. Ent., Jaroslavl, **3**, 1903, (223).

Eine neue *Platysma*-Art Aus Centralasien. l.c. (226-227).

Les *Leistus* de l'intérieur de la Chine. St. Petersburg, Hor. Soc. Ent. Ross., **36**, 1903, (22-37).

**Jacobson, G. G.** Coleoptera Mandshuriae meridionalis et peninsulae Quantungensis ab A. N. Gudzenko allata. (Russ.) St. Petersburg, Ann. Mus. zool. Ac. Sc., **8**, 1903, (XI-XVI).

**Meyer-Darcis, G.** Beiträge zur Kenntnis der Gattung *Coptolabrus* Solier. Schaffhausen, Mitt. Schweiz. Entomol. Ges., **10**, 1902, (405-410, mit 1 Taf.).

**Pic, M.** Diagnoses préliminaires de Longicornes provenant de Chine. Echange, Lyon, **19**, 1903, (105).

**Semenov, A. P.** Novae species tibetanae generis *Carabus* (L.). Rev. Russ. Ent., Jaroslavl, **3**, 1903, (349-352).

## ed COCHIN CHINA, TONQUIN, ANNAM.

**Fairmaire, L.** Description de quelques hétéromères recueillis par M. Fruhstorfer dans le haut-Tonkin.

Bruxelles, Ann. Soc. ent. Belgique, **47**, 1903, (13-20).

**Fleutiaux, Ed.** Contribution à la faune indochinoise (Indo-Chine française). (18<sup>e</sup> Mémoire). Deuxième addition aux *Cicindelidae* et *Elateridae*. Paris, Ann. soc. ent., **71**, (2<sup>e</sup> semest.), 1903, (569-580).

**Meyer-Darcis, G.** Beschreibung eines neuen Hirschkäfers *Odontolabis fruhstorferi*, Meyer-Darcis. Schaffhausen, Mitt. Schweiz. Entomol. Ges., **10**, 1902, (410-411, 1 pl.).

**Régimbart, M.** Contribution à la faune Indo-Chinoise (19<sup>e</sup> Mémoire): *Hydrophilidae*. Paris, Ann. Soc. ent., **72**, (1903), (52-64).

## cf BRITISH INDIA.

**Grouvelle, A.** Coléoptères de l'Inde récoltés par MM. H. L. Andrewes et T. R. D. Bell. Paris, Ann. soc. ent., **72**, 1903, (125-127).

Voyage de M. Maurice Maindron dans l'Inde méridionale (mai-novembre 1901), 2<sup>e</sup> Mémoire. Coléoptères clavicornes. l.c. (2<sup>e</sup> semest.). 1903, (340-347, av. fig.).

Clavicornes de l'Inde septentrionale récoltés par M. Harmand. (*Nitidulidae*, *Colydiidae*, *Cucujidae*, *Monotomidae*, *Dryopidae*.) l.c. (108-124).

**Oertzen, E. von.** Ueber einige von Dr. Horn auf Ceylon gesammelte Tenebrioniden. D. ent. Zs., Berlin, **1903**, (233-236).

**Olivier, Ernest.** Coléoptères Lampyrides capturés à Dardjilling par M. Harmand. Bul. Muséum, Paris, **1903**, (19-20).

**Pic, Maurice.** Voyage de M. Maurice Maindron dans l'Inde méridionale (mai à novembre 1901), 3<sup>e</sup> Mémoire. Anthicides. Paris, Ann. soc. ent., **72**, (2<sup>e</sup> semest.), 1903, (348-352).

**Régimbart, Maurice.** Voyage de M. Maurice Maindron dans l'Inde méridionale (mai à novembre 1901) 1<sup>er</sup> Mémoire. Dytiscides, Gyrinides, Palpicornes. l.c. (331-339).

**Sharp, D.** New species of Lamellicorn Coleoptera from the Nilgiri Hills. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (467-473).

**Stebbing, E. P.** A note on the discovery of *Thanosimus* sp. prox *nigricollis* in the N. W. Himalayas with some remarks on its life-history. Calcutta, J. As. Soc. Beng., **72**, pt. 2, 1903, (104-110).

**Weise, J.** Verzeichniss der von Dr. Horn auf Ceylon gesammelten Chrysomeliden. I: Eupoda et Camptosomata. D. ent. Zs., Berlin, **1903**, (17-34).

#### cy MALAY PENINSULA AND ARCHIPELAGO.

**Bernhauer, Max.** Beitrag zur Staphylinidenfauna von Ostindien und den Sundainseln. Stettiner ent. Ztg., **64**, 1903, (21-36).

**Bouchard, J.** Insectes recueillis par M. le professeur Forster à Borneo, Java et Sumatra (Palembang). Coléoptères carabiques. Paris, Ann. soc. ent., **72**, 1903, (169-176).

—— Contribution à l'étude des Carabiques de Sumatra. Paris. l.c. (177-180).

**Horn, W.** Contribution à l'étude de la faune entomologique de Sumatra. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (84-85).

**Jordan, K.** New Oriental Anthribidae. Nov. Zool., Tring, **10**, 1903, (415-434).

**Pic, Maurice.** Anthicides de Manille. Paris, Ann. soc. ent., **71**, (2<sup>e</sup> semest.), 1902, (643-648).

**Robinson, H. C.** Report on the Tiger beetles (*Cicindelidae*). Fascic. Malay. Zool., **1**, (179-183).

**Sharp, D.** *Helicoprion monhotus* and *H. dominus*. l.c. **2**, (281-287).

**Weise, J.** Coccinellides. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (91-96).

#### ch PERSIA.

**Glöerin, T.** Mémoire sur les Cicindélides des voyages de N. Zarudny dans la Perse orientale. St. Peterburg, Hor. Soc. Ent. Ross., **36**, 1903, (1-21).

**Semenov, A. P.** Nouvelles formes du genre *Carabus* (L.) de la Perse septentrionale. (Russ.) Rev. Russ. Ent., Jaroslavl', **3**, 1903, (230-232).

(x 2-90(3))

**Semenov, A. P.** Une nouvelle espèce du genre *Carabus* (L.) du Turkestan. (Russ.) l.c. (297-299).

—— De nova Purpuriceni specie e Persia austro-orientale. l.c. (358-359).

#### ei ASIATIC TURKEY AND ARABIA.

**Sahlberg, J.** Entomologische Forschungsreisen in den Mittelmeergegenden und Central-Asien. (Schwedisch) Helsingfors, Öfvers. F. Vet. Soc., **45**, [No. 9], 1902-1903, (1-34); [No. 17] (1-38).

—— Coleoptera Levantina mensibus Februario et Martio 1896 in Palaestina et Aegypto inferiore collecta. [No. 18]. l.c. (1-36).

#### f AFRICA.

**Fairmaire, L.** Matériaux pour la faune coléoptérique de la région malgache. *Curculionidae*. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (209-244).

**Jacoby, M.** A further contribution to our knowledge of African Phytophagous Coleoptera. Pt. II. London, Trans. Ent. Soc., **1903**, (1-38).

**Jakovlev, V. E.** Revision der *Sphenoptera* de la region éthiopienne. Supplément. St. Peterburg, Hor. Soc. Ent. Ross., **36**, 1903, (231-239).

**Jordan, K.** Some new African Anthribidae. Nov. Zool., Tring, **10**, 1903, (127-130).

—— African *Cerambycidae*. l.c. (131-191).

**Pic, M.** Coléoptères nouveaux d'Asie et d'Afrique. Echange, Lyon, **19**, 1903, (119-120).

**Schwarz, Otto.** Neue Elateriden aus Afrika und Madagaskar. D. ent. Zs., Berlin, **1903**, (357-376).

**Voigts, Hans.** Neue Ost-südafrikanische *Zonabris*. l.c. (101-107).

**Weise, J.** Afrikanische Galerucinen. l.c. (35-56, mit 1 Taf., 321-334).

#### fa MEDITERRANEAN STATES.

**Born, Paul.** Ueber einige nordafrikanische Caraben. Insektenbörse, Leipzig, **20**, 1903, (203-204).

**Desbrochers des Loges.** Description d'un Curculionide nouveau formant une coupe générique nouvelle. *l.c.* 19, 1903, (188).

**Pic, M.** Nouvelles espèces et variétés de coléoptères paléarctiques. *Echange*, Lyon, 17, 1902, (33-35, 79-80).

Coléoptères présumés nouveaux de la faune circumméditerranéenne. *l.c.* (63-65).

Descriptions et habitats de divers coléoptères du Nord de l'Afrique. *l.c.* 19, 1903, (113-115).

Malthinides nouveaux. *l.c.* (155-158).

**Sahlberg, J.** Entomologische Forschungsreisen in den Mittelmeergegenden und Central-Asien. (Schwedisch) Helsingfors, Öfvers. F. Vet. Soc., 45, [No. 9], 1902-1903, (1-34); [No. 17], (1-38).

Coleoptera Numido-Punica mensibus Martio, Aprili et Majo 1899 in Tunisia et Algeria orientali collecta. *l.c.* [No. 19], (1-70).

**Wasmann, E.** Coléoptères myrmécophiles recueillis par M. le Professeur A. Lameere en Algérie. Bruxelles, Ann. Soc. ent. Belgique, 46, 1902, (159).

#### fb NORTH EAST AFRICA.

**Sahlberg, J.** Entomologische Forschungsreisen in den Mittelmeergegenden und Central-Asien. (Schwedisch) Helsingfors, Öfvers. F. Vet. Soc., 45, [No. 9], 1902-1903, (1-34); [No. 17], (1-38).

Coleoptera Levantina mensibus Februario et Martio 1896 in Palestina et Aegypto inferiore collecta. *l.c.* [No. 18], (1-36).

#### fc SAHARA AND THE FRENCH SUDAN.

**Marchand, Ernest.** Description de deux Arthropodes nouveaux provenant du Soudan français. Nantes, Bul. soc. sci. nat., (sér. 2), 2, (2<sup>e</sup> semest.), 1902, (331-343, av. 1 pl.).

#### fd WEST AFRICA.

**Jacoby, Martin.** Descriptions of new genera and species of phytophagous

Coleoptera obtained by Herr Conradt in West Africa (Cameroons). Stettiner ent. Ztg, 64, 1903, (292-336).

**Jordan, K.** Some new *Cerambycidae* collected by Albert Mocquerys on the island of St. Thomé, Gulf of Guinea, W. Africa. Nov. Zool., Tring, 10, 1903, (192-195).

#### fe CONGO STATE AND ANGOLA.

**Belon.** Petite contribution à la connaissance des Longicornes du Congo. Bruxelles, Ann. Soc. ent. Belgique, 45, 1901, (246-247).

**Roos, G. van.** Ein neuer Prionide aus Central-Afrika [Stanley-Falls]. 's Gravenhage, Tijdschr. Ent., 45, 1903, (243-245, mit 1 Fig.).

#### ff EAST AFRICA.

**Brenake, E.** Neue Melolonthiden aus Usambara aus der Sammlung des Herrn Dr. Julius Schultz. D. ent. Zs., Berlin, 1903, (295-299).

**Gahan, C. J.** Coleoptera. Nat. Hist. Sokotra, (263-292, pl. XVII).

**Heath, E. A.** Description of a new Cetoniid beetle from British East Africa. Entomologist, London, 36, 1903, (98).

Description of a new Longicorn beetle from British East Africa. *l.c.* (273).

**Horn, Walther.** 3 neue Cicindeliden vom tropischen Ostafrika. 2 neue abessinische Cicindeliden. Eine neue Borneo - Cicindelide. D. Ent. Zs., Berlin, 1903, (421-423).

**Schwarz, Otto.** Zwei neue Arten der Throsciden-Gattung *Lissomus* Dalm. aus Deutsch Ostafrika. *l.c.* (399-400).

**Freiss, Paul.** *Cetoniidae*. (Wissenschaftl. Resultate der Reise Carlo Frhrn v. Erlanger's durch Süd-Schoc, Galla u. Somaliländer). Wiesbaden, Jahrb. Ver. Natk., 55, 1902, Abt. II, (93-111, mit 1 Taf.).

**Weise, J.** Afrikanische Chrysomeliden. Arch. Natg., Berlin, 69, Bd 1, 1903, (197-226).

## fg SOUTH AFRICA.

**Brenske, E.** *Hapalopus* n. gen. *Leptopodarum*. Soc. Entomol., Zürich, 17, 1903, (185).

**Horn, Walther.** Ueber die Cicindeliden-Ausbeute von Guy A. K. Marshall aus Rhodesia, Manica und Gazaland. D. Ent. Zs., Berlin, 1903, (315-317).

— Neue süd-afrikanische Cicindeliden. l.c. (318-320).

**Orsigny, H. d'** Notes sur divers Onthophagides de l'Afrique australe. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (289-300).

## fh MADAGASCAR.

**Alluaud, Ch.** Observations sur divers Cicindelides de Madagascar et description d'espèces nouvelles. Paris, Ann. soc. ent., 71, (2<sup>e</sup> semest.), 1902, (637-642, av. fig.).

**Fairmaire, L.** Description de coléoptères de Madagascar. Naturaliste, Paris, (sér. 2), 24, 1902, (286-287).

— Description de coléoptères nouveaux de Madagascar. l.c. 23, 1903, (9-11, 35-37).

— Matériaux pour la faune coléoptérique de la région malgache (14<sup>e</sup> Note). Paris, Ann. soc. ent., 71, (2<sup>e</sup> semest.), 1902, (532-568).

— Matériaux pour la faune coléoptérique de la région malgache (16<sup>e</sup> Note). l.c. 72, (2<sup>e</sup> semest.), 1903, (181-259).

**Fleutiaux, Ed.** Description de deux nouvelles espèces d'Elatérides de Madagascar. Naturaliste, Paris, (sér. 2), 25, 1903, (45).

**Heller, K. M.** Eine neue Art der Cetoniden - Gattung *Bothrorrhina* aus Madagascar. D. Ent. Zs., Berlin, 1903, (167-168).

**Jacoby, Martin.** Descriptions of some new genera and species of phytophagous Coleoptera from Madagascar. Bruxelles, Ann. Soc. Ent. Belgique, 45, 1901, (287-303).

**Raffray, A.** Psélaphides recueillis dans le sud de Madagascar par T. Ch. Alluaud. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (315-330, av. fig.).

**Régimbart, M.** Coléoptères aquatiques (*Hydrophilidae*, *Dytiscidae*, *Gyrinidae* et *Hydrophilidae*), recueillis dans le sud de Madagascar par M. Ch. Alluaud, (juin 1900-mai 1901). l.c. 72, 1903, (1-51).

## g NORTH AMERICA.

**Leane, P.** La distribution géographique des coléoptères bostrychides dans ses rapports avec le régime alimentaire de ces insectes. Rôle probable des grandes migrations humaines. Paris, C.-R. Acad. sci., 137, 1903, (133-135).

## gg NORTH-EASTERN UNITED STATES.

**Barber, H. G.** *Miscodera arctica* Payk [from Mt. Kteadon, Me.]. Philadelphia, Pa. Ent. News Acad. Nat. Sci., 14, 1903, (241).

**Bradley, J. Chester.** [*Hydrobius tessellatus* Ziegh. at Roberta, Chester Co., Pa.]. l.c. 13, 1902, (23).

**Bowditch, F. C.** Collection notes (Coleoptera).—1902. [Massachusetts.]. l.c. 14, 1903, (45-47).

**Davis, C. Abbott.** The Cicindelidae of Rhode Island. l.c. (270-273).

**Hood, L. E.** Notes on certain Coleoptera. [Collecting in Massachusetts.]. l.c. 13, 1902, (83-84).

**Klages, Henry G.** Supplement to Dr. John Hamilton's list of the Coleoptera of south-western Pennsylvania. [*Scydmaenidae* and *Peelaphidae* by Rev. Jerome Schmitt.]. Pittsburg, Pa., Ann. Carnegie Mus., 4, 1901, (265-294).

**Knab, Frederick.** Beetle prizes at Springfield, Mass. [with notes on Massachusetts beetles]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (89-90).

**MacGillivray, Alex[ander] D.** Aquatic *Chrysomelidae* and a table of the families of Coleopterous larvae. Albany Univ., N.Y., Bull. St. Mus., No. 68, 1903, (288-327, with pl.).

— and **Houghton, C. O.** A list of insects taken in the Adirondack Mountains, New York. 1. [Coleoptera]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (247-253).

**Schmitt, Rev. Jerome.** [*Sydmeriidae* and *Prelaphidae* of South-western Pennsylvania] [in paper by H. G. Klages]. Pittsburgh, Pa., Ann. Carnegie Mus., 1, 1901, (267-269).

**Schwarz, Otto.** Sechs neue nord-amerikanische Elateriden. D. ent. Zs., Berlin, 1903, (57-62).

**Slingerland, M. V.** The elm leaf beetle found at Ithaca, N.Y. [*Galerucella luteola*]. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (30).

#### gh SOUTH EASTERN UNITED STATES.

**Benthamiller, William.** Notes on some beetles from the Black Mountains [North Carolina] with descriptions of new species. New York, N.Y., Bull. Amer. Mus. Nat. Hist., 19, 1903, (511-519, with 2 pl.). Separate. 24.5 cm.

#### gi WESTERN UNITED STATES.

**Brues, Charles Thomas.** Two new Texan ant and termite guests. [nn. spp. in *Ecitozenia* and *Termitogaster*]. "Contributions from the Zoological Laboratory of the University of Texas. No. 32." Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (184-188, with 1 pl.).

**Kellogg, V[ernon] L[yman].** Notes on California *Coccidae*, *Aleurotidae*, and *Scolytidae*. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., No. 40, 1903, (83-84).

**Knaus, W.** Notes on collecting Coleoptera in Wyoming and Utah. Philadelphia, Pa. Ent. News Acad. Nat. Sci., 13, 1902, (114-115, 147-152).

— The Coleoptera of the Sacramento Mountains of New Mexico. L.c. 14, 1903, (172-180).

— Additions to the list of Kansas coleoptera for the years 1901 and 1902. Topeka, Trans. Kan. Acad. Sci., 18, 1903, (187-190).

**Skinner, Henry.** Coleoptera [from Beulah, New Mexico]. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., 29, 1902, (38-41).

**Snow, F[rancis] H[untington].** List of Coleoptera and Lepidoptera collected in Hamilton, Morton and Clark counties,

Kansas 1902 and 1903. Lawrence, Kan. Univ. Sci. Bull., 2, 1903, (191-208). Separate. 27.8 cm.

**Townsend, C[harles] H[enry] T[ylor].** Contribution to a knowledge of the Coleopterous fauna of the lower Rio Grande valley in Texas and Tamaulipas, with biological notes and special reference to geographical distribution. Austin, Trans. Texas Acad. Sci., 5, (1902), 1903, (49-101).

#### h CENTRAL AND SOUTH AMERICA.

**Jacoby, M.** Descriptions of new species of South-American Coleoptera of the family *Chrysomelidae*. London, Proc. Zool. Soc., 1903, 2, (30-59).

— Descriptions of some new species and a new genus of *Chrysomelidae* from South America. Entomologist, London, 36, 1903, (169, 170, 182, 183, 209-211).

**Leane, P.** La distribution géographique des coléoptères bostrychides dans ses rapports avec le régime alimentaire de ces insectes. Rôle probable des grandes migrations humaines. Paris, C.-R. Acad. sci., 137, 1903, (133-135).

**Pic, M.** Coléoptères nouveaux originaires de la Patagonie. Echange, Lyon, 17, 1902, (49-51).

**Schwarz, Otto.** Neue Elateriden aus Südamerika. . . . D. ent. Zs., Berlin, 1903, (63-80).

#### ha MEXICO.

**Fairmaire, L.** Descriptions de quelques longicornes du Mexique. Paris, Bul. soc. ent., 1902, (243-246).

**Horn, Walther.** List of the *Cicindelidae* of Mexico and on their relationship with the species of the United States. New York, N.Y., J. Ent. Soc., 11, 1903, (213-221).

**Townsend, C[harles] H[enry] T[ylor].** Contribution to a knowledge of the Coleopterous fauna of the lower Rio Grande valley in Texas and Tamaulipas, with biological notes and special reference to geographical distribution. Austin, Trans. Texas Acad. Sci., 5, (1902), 1903. (40-101).

**hb CENTRAL AMERICA.**

**Champion, G. E.** Coleoptera. Biol. Centr.-Amer., London, 1903, IV, pt. 4, (145-312, pls. IX-XVI).

**hc WEST INDIES.**

**Arrow, G. J.** On the Laparostict Lamellicorn Coleoptera of Grenada and St. Vincent (W. Indies). London, Trans. Ent. Soc., 1903, (500-520).

**Grouvelle, A.** Supplément à la liste des coléoptères de la Guadeloupe de MM. Fleutiaux et Sallé. Paris, Ann. soc. ent., 71, (2<sup>e</sup> semest.), 1902, [1903], (756-769).

**hd VENEZUELA.**

**Horn, Walther.** On the *Cicindelidae* of southern Venezuela, collected by Edward A. Klages, 1898-1900. Washington, D.C., Proc. Ent. Soc., 5, 1903, (331-334).

**he ECUADOR.**

**Ohaus, Friedr.** Verzeichnis der von Herrn Richard Haensch in Ecuador gesammelten Ruteliden (Coleoptera lamellicornia). Berliner ent. Zs., 48, 1903, (215-242).

**hf PERU.**

**Boucomont, A.** Description de quelques *Bolbocerini* nouveaux. Paris, Ann. soc. ent., 71, (2<sup>e</sup> semest.), 1902, (581-587, av. 1 pl.).

**hh BRAZIL.**

**Boucomont, A.** Description de quelques *Bolbocerini* nouveaux. Paris, Ann. soc. ent., 71, (2<sup>e</sup> semest.), 1902, (581-587, av. 1 pl.).

**Gahan, C. J. and Arrow, G. J.** List of the Coleoptera collected by Mr. A. Robert at Chapada, Matto Grosso (Percy Sladen expedition to Central Brazil). [An appendix by Arrow includes 4 nn. spp. from Paraguay]. London, Proc. Zool. Soc., 1903, 2, (244-258, pl. XXVIII).

**Pic, Maurice.** Contribution à l'étude des *Xyletini* du Bresil. Ann. Soc. ent. Belgique, 46, 1902, (17-18).

**hi ARGENTINE REPUBLIC.**

**Arrow, G. T.** Descriptions of a few new species of Coleoptera from Sapucay, Paraguay. London, Proc. Zool. Soc., 1903, 2, (255-258).

**i AUSTRALASIA.**

**Schwarz, Otto.** Neue Elateriden aus Neu-Guinea und Australien. D. ent. Zs., Berlin, 1903, (377-398).

**ia NEW GUINEA AND ISLANDS.**

**Heller, K. M.** Sechs neue Käfer aus Deutsch Neu-Guinea. D. ent. Zs., Berlin, 1903, (305-317).

— Un buprestide nouveau de la Nouvelle-Guinée allemande, *Iritaenia wahnesi*. Bruxelles, Ann. Soc. Ent. Belgique, 46, 1902, (234-235).

— Dritter Beitrag zur Papuanischen Käferfauna. Dresden, Abh. zool. Mus., 10, (1902-03), Berlin, 1903, Nr. 2, (II + 20).

**Pic, Maurice.** Descriptions de deux *Ilyophilus* d'Océanie appartenant au Musée civique de Gênes. Paris, Bul. soc. ent., 1902, (227-228).

**Rafray, A.** Voyage de M. L. Biró dans les possessions allemandes de la Nouvelle-Guinée. Psélaphides. Descriptions d'espèces nouvelles. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (29-106, av. pl. I-II).

**Spaeth, Franz.** Zusammenstellung der bisher von Neu-Guinea bekanntgewordenen Cassiden mit besonderer Berücksichtigung der Sammlungen des ungarischen National-Museums und des Museo civico von Genua. I.c. (109-160).

**Weise, J.** Neue Chrysomeliden aus Neu-Guinea. D. ent. Zs., Berlin, 1903, (335-336).

**ic AUSTRALIA.**

**Blackburn, T.** . . . Notes on Australian Coleoptera. Adelaide, S. Aust., Trans. R. Soc., 27, 1903, (91-182, 261-309).

## if VICTORIA.

**Barnard, F. G. A.** Excursion to Launching Place [Victoria]. [Coleoptera, 11 species.] Vict. Nat., Melbourne, **19**, 1903, (147).

**Best, D.** Excursion to Wandong [Victoria]. [Coleoptera, 7 species.] *l.c.* **20**, 1903, (103).

## ig SOUTH AUSTRALIA.

**Pic, Maurice.** Descriptions de deux *Hylophilus* d'Océanie appartenant au Musée civique de Gênes. Paris, Bul. soc. ent., **1902**, (227-228).

## ik NEW ZEALAND.

**Brown, T.** Descriptions of new genera and species of New Zealand Coleoptera. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (450-458, 602-618); **12**, 1903, (69-86).

**Sharp, P.** Some new Coleoptera from the Chatham Islands and New Zealand. Ent. Mag., London, **39**, 1903, (105-110).

## k ARCTIC.

**Sahlberg, John.** Aleocharids collected in the Arctic regions by the Swedish expeditions 1883 and 1899. (Swedish) Entomol. Tidskr., Stockholm, **22**, 1901, (167-169).

## l ATLANTIC.

## lb AZORES.

**Pic, M.** Coléoptères nouveaux de l'île de Ténériffe. Echange, Lyon, **17**, 1902, (80-81).

## n PACIFIC.

## nd SANDWICH ISLANDS.

**Sharp, D.** Coleoptera. III. Coleoptera Caraboidea. Fauna Hawaiiensis, **11**, (175-292, pls. VI, VII); [Summary]. Entomologist, London, **36**, 1903, (263).

## o ANTARTIC.

## od ISLANDS TO SOUTHWARD AND SOUTHEAST OF NEW ZEALAND.

**Sharp, D.** Some new Coleoptera from the Chatham Islands and New Zealand. Ent. Mag., London, **39**, 1903, (105-110).

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## TAXONOMY AND SYSTEMATIC.

## GENERAL.

**Arrow, G. T.** On the Laparostict Lamellicorn Coleoptera of Grenada and St. Vincent (W. Indies). London, Trans. Ent. Soc., **1903**, (509-520).

**Barnard, F. G. A.** [Coleoptera, 11 species]. Excursion to Launching Place. [Victoria.] Vict. Nat., Melbourne, **19**, 1903, (147).

**Best, D.** [Coleoptera; 7 species from Wandong, Victoria]. *l.c.* **20**, 1903, (103).

**Belon.** Petite contribution à la connaissance des Longicornes du Congo Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (246-247).

**Beutenmüller, W.** Notes on some beetles from the Black Mountains [North Carolina] with descriptions of new species. New York, N.Y., Bull. Amer. Mus. Nat. Hist., **19**, 1903, (511-519, with 2 pls.). Separate. 24.5 cm.

**Boden.** Beschädigung der jungen Kiefernulturen durch wurzelbrütende Hylesinen im akademischen Lehrrevier Freienwalde a. O. Zs. Forstw., Berlin, **35**, 1903, (551-554).

**Čičerin, T.** Zu Dr. K. Daniels kritischem Nachgraben. Rev. Russ. Ent., Jaroslavl, **3**, 1903, (39-40).

**Coulon, L.** Muséum d'Histoire naturelle d'Elbeuf. Catalogue de la collection de coléoptères longicornes d'Europe. Elbeuf, Bul. soc. étud. sci. nat., **20**, 1901, [1902], (pagin. spéc. 1-11).

**Dupont, L.** Insectes du Jardin (Mont-Blanc). *l.c.* (41).

**Ehrman, G. A.** Notes on Coleoptera No. 2. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (140-141).

**Everts, Ed.** Die Käfer von Niederland und dem angrenzenden Gebiete. Vol. 2, Lief. 2. (Holländisch) 's Gravenhage (Mart. Nijhoff), 1903, (401-796, 8 Taf.). 27 cm.

**Fairmaire, L.** Matériaux pour la faune coléoptérique de la région malgache (14<sup>e</sup> Note). Paris, Ann. soc. ent., **71**, (2<sup>e</sup> semest.), 1902, (532-568).

Matériaux pour la faune coléoptérique de la région malgache (16<sup>e</sup> Note). *I.c.* **72**, (2<sup>e</sup> semest.), 1903, (181-259).

**Friedrichs, K.** Beiträge über paläarktische Coleopteren. Allg. Zs. Ent., Neudamm, **8**, 1903, (87-90, 257-261).

**Gahan, C. J. and Arrow, G. J.** List of the Coleoptera collected by Mr. A. Robert at Chapada, Matto Grosso, Percy Sladen expedition to Central Brazil. [An appendix by Arrow includes 4 nn. spp. from Paraguay]. London, Proc. Zool. Soc., **1903**, 2, (244-258, pl. XXVIII).

**Ganglbauer, L.** Bemerkungen zu Prof. H. J. Kolbe's Arbeit „Zur Systematik der Coleopteren“. Allg. Zs. Ent., Neudamm, **8**, 1903, (268-269).

**Grouvelle, A.** Supplément à la liste des coléoptères de la Guadeloupe de MM. Fleutiaux et Sallé. Paris, Ann. soc. ent., **71**, (2<sup>e</sup> semest.), 1902, [1903] (756-769).

Clavicornes de l'Inde septentrionale récoltés par M. Harmand. (*Nitidulidae*, *Colydiidae*, *Cucujidae*, *Monotomidae*, *Dryopidae*). *I.c.* **72**, 1903, (108-124).

Coléoptères de l'Inde récoltés par MM. H. L. Andrewes et T. R. D. Bell. *I.c.* (125-127).

Voyage de M. Maurice Maindron dans l'Inde méridionale (mai-novembre 1901). 2<sup>e</sup> Memoire. Coléoptères clavicornes. *I.c.* (2<sup>e</sup> semest.), 1903, (340-347, av. fig.).

**Heller, K. M.** Dritter Beitrag zur Papuanischen Käferfauna. Dresden, Abh. zool. Mus., **10**, (1902-1903), Berlin, 1903, Nr. 2, (II + 20).

**Jacobson, G. G.** Coleoptera Mandshuriae meridionalis et peninsulae Quantungensis, ab A. N. Gudzenko allata

.. . (Russ.) St. Peterburg, Ann. Mus. zool. Ac. Sc., **8**, 1903, (XI-XVI).

**Jacoby, M.** A further contribution to our knowledge of African phytophagous Coleoptera. Pt. II. London, Trans. ent. Soc., **1903**, (1-38).

**Janson, O. E.** On the genus *Theodossia* and other eastern *Goliathides*, with descriptions of some new species. *I.c.* (303-310).

**Klages, H. G.** Supplement to Dr. John Hamilton's list of the Coleoptera of south-western Pennsylvania. [*Scydmanidae* and *Pselaphidae* by Rev. Jerome Schmitt.] Pittsburg, Pa., Ann. Carnegie Mus., **1**, 1901, (265-294).

**Knaus, W.** Additions to the list of Kansas Coleoptera for the years 1901 and 1902. Topeka, Trans. Kan. Acad. Sci., **18**, 1903, (187-190).

**Kolbe, H. J.** Zur Systematik der Coleopteren. Allg. Zs. Ent., Neudamm, **8**, 1903, (137-145).

**Küster, H. C. und Kraatz, G.** Die Käfer Europas. Nach der Natur beschrieben. Fortgesetzt von J. Schilsky. H. 40. Nürnberg (Bauer & Raspe), 1903, (VIII + 270). 15 cm. 3 M.

**Lameere, A.** Nouvelles notes pour la classification des coléoptères. Bruxelles, Ann. Soc. ent. Belgique, **47**, 1903, (155-165).

**Marchal, C.** Sur quelques coléoptères peu connus ou nouveaux pour Saône-et-Loire. Autun, Bul. soc. sci. nat., **15**, 1902, (Proc. verb. 263-265).

**Mjöberg, E.** Rare Coleoptera. I. From the surroundings of Stockholm. (Swedish) Entomol. Tidskr., Stockholm, **22**, 1901, (191-192).

**Norman, A. M.** [Coleoptera in:] Notes on the Natural History of East Finmark. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (166).

**Peyerimhoff, P. de.** Coléoptères nouveaux pour la faune française. Description d'une espèce inédite. Paris, Bul. soc. ent., **1903**, (246-247).

Sur l'état de la systématique en entomologie, principalement chez les coléoptères. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (37-42).

Sur la méthode dans les recherches de phylogénie entomologique. Feuille jeunes natural. *I.c.* (89-95).



**Peyerimhoff, P. de.** Descriptions des larves de trois coléoptères exotiques. Paris, Ann. soc. ent., **71**, (2<sup>e</sup> semest.), 1902, [1903], (710-718, av. fig.).

**Pic, M.** Diagnoses de coléoptères de l'Ancien et du Nouveau Monde. Echange, Lyon, **17**, 1902, (23-26).

Deux notes entomologiques avec synopsis. *l.c.* (41-42).

Coléoptères intéressants, rares ou nouveaux pour la faune française. *l.c.* (46).

Descriptions et notes diverses. *l.c.* (47-49, 55-57, 71-72).

Coléoptères intéressants, rares ou nouveaux pour la faune française (fin). *l.c.* (51).

Notes entomologiques diverses et descriptions. *l.c.* **19**, 1903, (89-91).

Descriptions et notes complémentaires sur divers coléoptères paléarctiques. *l.c.* (97-98).

Descriptions et habitats de divers coléoptères du Nord de l'Afrique. *l.c.* (113-115).

Captures, notes diverses et diagnoses. *l.c.* (129-131).

Quelques coléoptères rares ou nouveaux pour la faune gallo-rhénoise. *l.c.* (153-155).

**Pohl, Robert.** Eine Käferernte. Aus d. Heimat, Stuttgart, **15**, 1902, (48-53).

**Quittard, J.** Contribution à la faune des coléoptères du département du Puy-de-Dôme, principalement des environs de Riom (supplément). Echange, Lyon, **19**, 1903, (160, 165-166, 173).

**Régimbart, M.** Voyage de M. Maurice Maindron dans l'Inde méridionale (mai à novembre 1901) 1<sup>er</sup> Mémoire. Dytiscides, Gyrinides, Palpicornes. Paris, Ann. soc. ent., **72**, (2<sup>e</sup> semest.), 1903, (331-339).

**Reitter, E.** Analytische Uebersicht der palaearctischen Gattungen und Arten der Coleopteren-Familien *Dytiscidae* (*Anobiidae*) und *Cioidae*. Brunn, Verh. Natf. Ver., **40**, (1901), 1902, (3-64).

**Sahlberg, J.** Coleoptera mediterranea et rosso-asiatica nova et minus cognita. II. Helsingfors, Öfvers. F. Vet. Soc., **45**, [No. 10], 1902-1903, (1-40).

**Sahlberg, J.** Messis hiemalis Coleopterorum Corcyraeorum. *l.c.* [No. 11], (1-84).

Ad cognitionem faunae Coleopterorum Graecae fragmenta. *l.c.* [No. 12], (1-9).

Ad cognitionem faunae Coleopterorum Italicae fragmenta. *l.c.* [No. 13], (1-14).

Coleoptera Levantina mensibus Februario et Martio 1896 in Palaestina et Aegypto inferiore collecta. *l.c.* [No. 18], (1-36).

Coleoptera Numido-Punica mensibus Martio, Aprili et Majo 1899 in Tunisia et Algeria orientali collecta. *l.c.* [No. 19], (1-70).

Aleocharids collected in the arctic regions by the Swedish expeditions 1883 and 1899. (Swedish Entomol. Tidskr., Stockholm, **22**, 1901, (167-169).

**Sainte-Claire Deville, J.** Exploration entomologique des grottes des Alpes-Maritimes. Paris, Ann. soc. ent., **71**, 1902, [1903], (695-709, av. fig.).

**Schmitt, Rev. J.** [Scydmaenidae and Pselaphidae of south-western Pennsylvania] [in paper by H. G. Klages]. Pittsburg, Pa., Ann. Carnegie Mus., **1**, 1901, (267-269).

**Semenov, A. P.** Analecta coleopterologica I-IV. Rev. Russ. Ent., Jaroslavl, **3**, 1903, (14-15, 99-100, 169-173, 306-307, 390-392).

Les ailes inférieures des coléoptères, considérées comme caractère systématique. (Russ.) *l.c.* (103-106).

**Sharp, D.** On some Coleoptera from the Faeroe Islands. Ent. Mag., London, **39**, 1903, (249-250).

**Skinner, H.** Coleoptera [from Beulah, New Mexico]. Philadelphia, Pa., Acad. Nat. Sci., Trans. Amer. Ent. Soc., **29**, 1902, (38-41).

**Strand, E.** Staphylinids and Apions, new for the Norwegian fauna. (Norw.) Entomol. Tidskr., Stockholm, **22**, 1901, (143).

**Townsend, C. H. T.** Contribution to a knowledge of the Coleopterous fauna of the Rio Grande Valley in Texas and Tamaulipas, with biological notes and

special reference to geographical distribution. Austin, Trans. Texas Acad. Sci., 5, (1902), 1903, (49-101).

**Viturat, abbé.** Catalogue des coléoptères du département de Saône-et-Loire. Echange, Lyon, 17, 1902, (1-16, pagin. spéc.), (1-28, pagin. spéc.); 19, 1903, (29-54, pagin. spéc.).

## PASSALIDAE.

## GENERAL.

**Zang, R.** Bemerkungen zur älteren Passaliden-Litteratur. D. ent. Zs., Berlin, 1903, (417-420).

## SPECIAL.

*Alcervius* nn. spp. **Zang, R.** Insektenbörse, Leipzig, 20, 1903, (338-339).

*Epilaches* nn. spp. **Zang, R.** l.c. (338-339).

*Plethenus scutellopunctatus* n. sp. **Zang, R.** l.c. (338-339).

## LUCANIDAE.

## GENERAL.

**Boileau, H.** Note sur quelques Lucanides du musée de Bruxelles. Bruxelles, Mém. Soc. entom. Belgique, 9, 1903, (33-62).

**Kolbe, H. J.** Ueber den einseitigen Polymorphismus im männlichen Geschlecht der Lucaniden. Ein kurzer Entwurf. Insektenbörse, Leipzig, 20, 1903, (43-45).

**Müller, J.** *Lucanidae Dalmatiae*. Wien, Verh. ZoolBot. Ges., 52, 1902, (438-466).

## SPECIAL.

*Aegus* nn. spp. **Möllenkamp, W.** D. ent. Zs., Berlin, 1903, (352-354).

*Cardanus costatus* n. sp. **Ritsema, Czn, C.** Leiden, Notes Mus. Jentink, 23, 1903, (229-230).

*Cyclommatus* nn. spp. **Möllenkamp, W.** D. ent. Zs., Berlin, 1903, (337-340).

*Dorcus thoracica* n. sp. **Möllenkamp, W.** l.c. (346).

*Eurytrachelus praecellens* n. sp. **Möllenkamp, W.** l.c. (344).

*Leptinopterus consimilis* n. sp. **Möllenkamp, W.** l.c. (350).

*Linotes auriculatus* n. sp. New Zealand. **Broun, T.** Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (615-616).

*Lucanus singularis* n. sp. **Planet, I.** Naturaliste, Paris, (sér. 2), 25, 1903, (11-12, av. fig.).

*Metopodontus claphus* n. sp. **Möllenkamp, W.** D. ent. Zs., Berlin, 1903, (343).

*Mitophyllus comognathus* n. sp. New Zealand. **Broun, T.** Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (616-617).

*Neolucanus celebensis* n. sp. **Möllenkamp, W.** D. ent. Zs., Berlin, 1903, (349).

*Nigidius gigas* n. sp. **Möllenkamp, W.** l.c. (346).

*Odontolabis* nn. spp. **Möllenkamp, W.** l.c. (341-351).

—— *fruhstorferi* n. sp. **Meyer-Dardis, G.** Mitt. Schweiz. Entomol. Ges., 10, 1902, (410-411, 1 pl.).

*Prosopocoelus mandibularis* n. sp. **Möllenkamp, W.** D. ent. Zs., Berlin, 1903, (345).

## SCARABAEIDAE.

## GENERAL.

Liste analytique illustré des genres des coléoptères de France. Série scarabéidienne. Naturaliste, Paris, (sér. 2), 24, 1902, (220, 277-278).

**Arrow, G. T.** On the affinities and nomenclature of certain genera of Melolonthid and Rutelid Coleoptera. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (303-306).

**Müller, J.** *Scarabaeidae dalmatiae*. Wien, Verh. ZoolBot. Ges., 52, 1902, (438-466).

**Ohaus, F.** Verzeichnis der von Herrn Richard Haensch in Ecuador gesammelten Ruteliden (Coleoptera lamellicornia). Berliner ent. Zs., 48, 1903, (215-242).

**Orthigny**, H. d'. Notes sur divers Onthophagides de l'Afrique australe. Paris, Ann. soc. ent., **72**, (2<sup>e</sup> semest.), 1903, (289-300).

**Preiss**, P. *Cetonidae*. (Wissenschaftl. Resultate der Reise Carlo Frhrn. v. Erlanger's durch Süd-Schosa, Galla u. Somaliländer). Wiesbaden, Jahrb. Ver. Natk., **55**, 1902, Abt. II, (93-111, mit 1 Taf.).

**Reitter**, E. Bestimmungs-Tabelle der Melolonthidae aus der europäischen Fauna und den angrenzenden Ländern, enthaltend die Gruppen der Pachydemiini, Sericini, und Melolonthini. Brunn, Verh. Natf. Ver., **40**, (1901), 1902, (93-303).

**Schreiner**, Ja. F. Der Rebenschneider (*Lethrus apterus* Walk) und die Mittel zu dessen Bekämpfung. (Eine landwirthschaftliche Monographie) (Russ.) Trd. B. entom. Učen. Kom. M. Zeml., St. Petersburg, **IV**, No. 1, 1903, (45, mit 10 Fig. u. 1 Taf.).

## SPECIAL.

*Achranoxia planipalpis* n. sp. **Reitter**, Brunn, Verh. Natf. Ver., **40**, (1901), 1902, (278).

*Adoretus oedipus* n. sp. Madagascar. **Fairmaire**, L. Naturaliste, Paris, (sér. 2), **23**, 1903, (9).

— *ovalis* Blanchard. India. **Sharp**, D. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (472, 473).

*Aegidium vincentiae* n. sp. St. Vincent. **Arrow**, G. T. London, Trans. Ent. Soc., **1903**, (515).

*Ahermes* Rtt. 1891 synopsis specierum; 2 nn. spp. Mongolia austr. **Semenov**, A. P. Rev. Russ. Ent. Jaroslavl, **3**, 1903, (26-28).

— *ahngeri* n. sp. Transcaspia. **Semenov**, A. P. Lc. (8-13).

*Aleucolomus* n. subgen. (*Chioneosema*) for *C. subporosa* n. sp. **Reitter**, E. Brunn, Verh. Natf. Ver., **40**, (1901), 1902, (192).

*Amadotrogus* n. subgen. (*Amphimallus*). **Reitter**, E. Lc. (248).

*Amaurina viridipennis* n. sp. **Moser**, J. Berliner ent. Zs., **48**, 1903, (319).

*Amblonoxia* n. gen. **Reitter**. Brunn, Verh. Natf. Ver., **40**, (1901), 1902, (276).

*Amphimallus* nn. spp. **Reitter**. Lc. (238-245).

*Anacamptorhina concolor* n. sp. Papua. **Heller**, K. M. Dresden, Abh. Zool. Mus., **10**, (1902-03), Berlin, 1903, Nr. 2, (11 + 20).

*Anisoplia reitteriana* n. nom. = *A. scytha* Rtt. 1889. **Semenov**, A. P. Rev. Russ. Ent., Jaroslavl, **3**, 1903, (99).

*Anochilia punctulicollis* n. sp. Madagascar. **Fairmaire**, L. Naturaliste, Paris, (sér. 2), **23**, 1903, (36).

*Anodon conicifrons* n. sp. **Fairmaire**, L. Paris, Ann. soc. ent., **72**, (2<sup>e</sup> semest.), 1903, (188).

*Anomala* nn. spp. India. **Sharp**, D. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (471-472).

— *gudzenkoi* n. sp. — Mandshuria mer. **Jacobson**, G. S. St. Petersburg, Ann. Mus. Zool. Ac. Sc., **8**, 1903, (XI-XVI).

*Anoxiella* n. subgen. (*Brahminal*). **Reitter**, E. Brunn, Verh. Natf. Ver., **40**, (1901), 1902, (178).

*Anthypna carellii*: note ed osservazioni. **Luigioni**, P. Mon. zool. ital., Firenze, **13**, 1902, (Supplemento, (20-22)).

*Aphodius* nn. spp. **Fairmaire**, L. Paris, Ann. soc. ent., **72**, (2<sup>e</sup> semest.), 1903, (186-187).

— *sturmi* Harold: a British insect. **Bouskell**, F. Ent. Rec., London, **15**, 1903, (92).

*Aplaster pagenstecheri* n. sp. Afrika. **Preiss**, P. Wiesbaden, Jahrb. Ver. Natk., **55**, 1902, Abt. II, (93-111).

*Aposchiza* n. gen. (~ *Homoeoschiza* Kolbe), *A. schulzi* n. sp. Usambara. **Brenske**, E. D. ent. Zs., Berlin, **1903**, (296-297).

*Apterodema paraguayensis* n. sp. Paraguay. **Arrow**, G. J. London. Proc. Zool. Soc., **1903**, 2, (255-256).

*Arachnopus patronoides* n. sp. Deutsch Neu-Guinea. **Heller**, K. M. D. ent. Zs., Berlin, **1903**, (305-317).

*Atenius* nn. spp. Grenada. **Arrow**, G. J. London, Trans. Ent. Soc., **1903**, (512-513).

*Athyreus* nn. spp. **Boucomont**, A. Paris, Ann. soc. ent., **71**, (2<sup>e</sup> semest.), 1903, (581-587, av. 1 pl.).

*Bolaz oberthüri* n. sp. Ecuador. **Ohaus**, F. Berliner ent. Zs., **48**, 1903, (235).

*Bolboceus* nn. spp. **Boucomont**, A. Paris, Ann. soc. ent., **71**, (2<sup>e</sup> semest.), 1902, (581-587, av. 1 pl.).

*Bothrorrhina nickerli* n. sp. Madagascar. **Heller**, K. M. D. ent. Zs., Berlin, **1903**, (167-168).

—— *rufonotata* n. sp. Madagascar. **Fairmaire**, L. Naturaliste, Paris, (sér. 2), **24**, 1902, (286-287).

*Brahmina* nn. spp. **Reitter**. Brunn, Verh. Natf. Ver., **40**, (1901), 1902, (181).

*Caccobius schreberi* n. varr. **Müller**, J. Wien, Verh. ZoolBot. Ges., **52**, 1902, (454).

*Callistethus pterygophorus* n. sp. **Ohaus**, F. D. ent. Zs., Berlin, **1903**, (217).

*Canthidium sladeni* n. sp. Brazil. **Gahan**, C. J. and **Arrow**, G. J. London, Proc. Zool. Soc., 1903, 2, (249-250, pl. XXVIII, fig. 1).

*Chalcocrates* n. gen., *C. felschei* n. sp. Deutsch Neu-Guinea. **Heller**, K. M. D. ent. Zs., Berlin, **1903**, (305-306).

*Chalcopharis* n. gen., *C. nigroacnea* n. sp. Papua. **Heller**, K. M. Dresden, Abh. Zool. Mus., **10**, (1902-03), Berlin, 1903, Nr. 2, (11 + 20).

*Chioneosema* nn. spp. **Reitter**. Brunn, Verh. Natf. Ver., **40**, (1901), 1902, (192-194).

*Chionotrogus* n. subgen. (*Chioneosema*) for *Chioneosema molaris* n. sp. and *C. sequens* n. sp. **Reitter**, F. l.c. (190).

*Chromophilus* nn. spp. Madagascar. **Fairmaire**, L. Naturaliste, Paris, (sér. 2), **24**, 1902, (286-287).

—— *nickerli* n. sp. **Moser**, J. Berliner ent. Zs., **47**, 1902, [1903], (283-287).

*Clavipalpus tenuis* n. sp. Brazil. **Gahan**, C. J. and **Arrow**, G. J. London, Proc. Zool. Soc., **1903**, 2, (251, pl. XXVIII, fig. 2).

*Cloeotus* nn. spp. **Arrow**, G. J. London, Trans. Ent. Soc., **1903**, (517-520).

*Clypearia* n. gen., *C. pruinosa* n. sp. **Fairmaire**, L. Paris, Ann. soc. ent., **72**, (2<sup>e</sup> semest.), 1903, (194).

*Cnemargulus* n. gen., *C. krulikowskii*, *C. pusio* nn. spp. Transcaspiæ. **Semenov**, A. Rev. Russ. Ent., Jaroslavl', **3**, 1903, (354-355).

*Coelodes nigripennis* n. sp. St. Vincent. **Arrow**, G. J. London, Trans. Ent. Soc., **1903**, (516).

*Coptodactyla ducalis* n. sp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (263).

*Coptomia discipennis* n. sp. **Fairmaire**, L. Paris, Ann. soc. ent., **72**, (2<sup>e</sup> semest.), 1903, (199).

*Cosmiomorpha tonkinensis* n. sp. **Moser**, J. Berliner ent. Zs., **48**, 1903, (145).

*Crepischiza* n. gen., (~ *Homoeoschiza*), *C. usambarae* n. sp. Usambara. **Brenske**, E. D. ent. Zs., Berlin, **1903**, (297).

*Cyclocephala paraguayensis* n. sp. Paraguay. **Arrow**, G. J. London, Proc. Zool. Soc., **1903**, 2, (257).

*Cyphochilus* nn. spp. **Brenske**, E. Insektenbörse, Leipzig, **20**, 1903, (380-381).

*Cyphonotus integriceps* n. sp. **Reitter**. Brunn, Verh. Natf. Ver., **40**, (1901), 1902, (292).

*Dasytrogus* n. gen. **Reitter**. l.c. (230).

*Dilochrosis parvula* n. sp. **Moser**, J. Berliner ent. Zs., **47**, 1902, [1903], (283-287).

*Disticha marginata* n. sp. **Moser**, J. l.c. **48**, 1903, (145).

*Dynastes titius*, notes . . . **Chittenden**, F. H. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **38**, 1902, (28-32, with pl.).

*Elaphocera* nn. spp. **Reitter**. Brunn, Verh. Natf. Ver., **40**, (1901), 1902, (97-105).

*Elaphocera* n. subgen. (*Elaphocera*). **Reitter**, F. l.c. (98).

*Enaria* nn. spp. Madagascar. **Fairmaire**, L. Paris, Ann. soc. ent., **72**, (2<sup>e</sup> semest.), 1903, (195).

— nn. spp. Madagascar. **Fairmaire**, L. Naturaliste, Paris, (sér. 2), **23**, 1903, (35).

*Encya denserestita* n. sp. **Fairmaire**, L. Paris, Ann. soc. ent., **72**, (2<sup>e</sup> semest.), 1903, (194).

*Entelesthes similis* n. sp. **Moser**, J. Berliner ent. Zs., **47**, 1902, [1903], (283-287).

*Epilissus zarabaeoides* n. sp. Madagascar. **Fairmaire**, L. Naturaliste, Paris, (sér. 2), **23**, 1903 (35).

*Epixanthus nigriceps* n. sp. Madagascar. **Fairmaire**, L. l.c. (36).

*Eretusa* n. subgen. (*Holotrichia*). **Reitter**, E. Brünn, Verh. Natf. Ver., **40**, (1901), 1902, (174).

*Eriotrogus* n. subgen. (*Amphimallus*) for *Amphimallus erivanicus* n. sp. **Reitter**, E. l.c. (252).

*Erlungeria* n. gen. (~ *Somalibia*), *E. schoana* n. sp. Afrika. **Preiss**, P. Wiesbaden, Jahrb. Ver. Natk., **55**, 1902, Abt. II, (93-111).

*Exolontha* n. gen. **Reitter**. Brünn, Verh. Natf. Ver., **40**, (1901), 1902, (269).

*Faula insularis* n. sp. St. Vincent. **Arrow**, G. J. London, Trans. Ent. Soc., **1903**, (520).

*Fruhatforferia anthracina* n. sp. **Ohaus**, F. D. ent. Zs., Berlin, **1903**, (225).

*Geniates schmidti* n. sp. **Ohaus**, F. Berliner ent. Zs., **48**, 1903, (236).

*Geotrogus rectibasis* n. sp. **Reitter**. Brünn, Verh. Natf. Ver. **40**, (1901), 1902, (229).

*Geotrupes*. **Müller**, J. Wien, Verh. ZoolBot. Ges., **52**, 1902, (438-466).

— zusammengesetzte Zirp-vorrichtung. **Verhoeff**. Berlin, SitzBer. Ges. natf. Freunde, **1902**, (149-155).

— *typhoeus* L. **Vlemeyer**, H. Ent. Jahrb., Leipzig **12**, 1903, (254).

*Glaphyrus* Latr., note sur le genre. **Pic**, M. Echange, Lyon, **19**, 1903, (173-174).

*Gnorimus albomaculatus* n. sp. **Moser**, J. Berliner ent. Zs., **47**, 1902, [1903], (283-287).

*Gymnopleurus*. **Müller**, J. Wien, Verh. ZoolBot. Ges., **52**, 1902, (438-466).

*Hapalopus* n. gen. *Leptopodarum*. **Brenake**, E. Soc. Entomol., Zürich, **17**, 1903, (185).

*Haplidia* nn. spp. **Reitter**. Brünn, Verh. Natf. Ver., **40**, (1901), 1902, (185-187).

*Helicopris mouhotus*, and *H. dominus*. **Sharp**, D. Fascic. Malay. Zool., **2**, (281-287).

*Hemietenius* nn. spp. **Reitter**. Brünn, Verh. Natf. Ver. **40**, (1901), 1902, (134-136).

*Heterophana dissimilis* n. sp. **Fairmaire**, L. Paris, Ann. soc. ent., **72**, (2<sup>e</sup> semest.), 1903, (197).

*Heterosoma suturale* n. sp. Madagascar. **Fairmaire**, L. Naturaliste, Paris, (sér. 2), **24**, 1902, (286-287).

*Holochelus lineolatus* u. sp. Asia Minor. **Reitter**. Brünn, Verh. Natf. Ver., **40**, (1901), 1902, (195).

*Holotrichia* nn. spp. **Reitter**. l.c. (93-303).

— nn. spp. India. **Sharp**, D. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (467, 468).

*Hoplia* nn. spp. **Fairmaire**, L. Paris, Ann. soc. ent., **72**, (2<sup>e</sup> semest.), 1903, (189-193).

*Hoplochelus* nn. spp. **Fairmaire**, L. l.c. (196-197).

*Hymenoplia clypealis* n. sp. **Reitter**. Brünn, Verh. Natf. Ver., **40**, (1901), 1902, (157).

*Ingrisma* nn. spp. India. **Janson**, A. O. London, Trans. Ent. Soc., **1903**, (308-310).

*Lagochile* nn. spp. Ecuador. **Ohaus**, F. Berliner ent. Zs., **48**, 1903, (220-227).

*Lasiopis* nn. spp. **Reitter**. Brünn, Verh. Natf. Ver., **40**, (1901), 1902, (168-169).

*Liatongus politicollis* n. sp. Madagascar. **Fairmaire**, L. Naturaliste, Paris, (sér. 2), **24**, 1902, (286-287).

*Linotarsia cincticollis* n. sp. **Fairmaire**, L. Paris, Ann. soc. ent., **72**, (2<sup>e</sup> semest.), 1903, (197).

*Liostraca semistriata* n. sp. Madagascar. **Fairmaire**, L. Naturaliste, Paris, (sér. 2), **23**, 1903, (9).

*Lomaptera iridescens* n. sp. Deutsch Neu-Guinea. **Heller**, K. M. D. ent. Zs., Berlin, **1903**, (308).

—— *satanas* n. sp. Papua. **Heller**, K. M. Dresden, Abh. Zool. Mus. **10**, (1902-03), Berlin, 1903, Nr. 2, (II + 20).

*Lymedea*, Bemerkungen. **Sternberg**, C. D. ent. Zs., Berlin, **1903**, (300-304).

*Lycus* nn. spp. **Bourgeois**, J. Paris, Ann. n. c. ent., **71**, (2<sup>e</sup> semest.), 1902, [1903], (737-750).

*Macraspis brasiliensis* n. sp. Paraguay. **Arrow**, G. J. London, Proc. Zool. Soc., **1903**, 2, (256-257).

*Madtrogus* n. subgen. (*Amplinnallus*). **Reitter**, E. Brunn, Verh. Verh. Natf. Ver., **40**, (1901), 1902, (251).

*Meganozia* n. gen., *Meganozia orita* n. sp. **Reitter**, l. c. (280-281).

*Melanocamenta* nn. spp. Usambara. **Brenake**, E. D. ent. Zs., Berlin, **1903**, (295).

*Melaserica* ? *barberi* n. sp. India. **Sharp**, D. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (469).

*Melolontha anita* n. sp. **Reitter**, Brunn, Verh. Natf. Ver., **40**, (1901), 1902, (263).

—— *culgaris*. Engerlinge. (Flugjahre) Schweiz-Bauer, Bern, **57**, 1903, No. 31, (2); No. 32, (2); No. 33, (1-2).

—— ——— Engerlings-schaden. l. c. No. 55, (2).

—— ——— *mostruosa*. **Leardi-Alraghi**, Z. Milano, Atti Soc. ital. sc. nat., **41**, 1902, (353-356, con fig.).

—— ——— var. *elliptica* n. var. **Müller**, J. Wien, Verh. Zool. Bot. Ges., **52**, 1902, (438-466).

—— ——— Revision der Verordnung ueber Vertilgung. **Plantacanova**, P. C. Volkswirtschaft. Bl., Graubünden, Chur, **1903**, No. 11, (1-2); No. 12, (1-2).

—— ——— vertilgung. **Seelen**, von. Zs. Forstw., Berlin, **35**, 1903 (368-373).

*Miltotrogus* n. subgen. (*Rhizotrogus*) for *R. mimicus* and *R. ectirentis* nn. spp. Syria. **Reitter**, E. Brunn, Verh. Natf. Ver., **40**, (1901), 1902, (196-201).

*Miridiba* n. gen. **Reitter**, l. c. (170).

*Mitracamenta* n. gen. (~ *Hemicamenta*), *M. lineella* n. sp. Usambara. **Brenake**, E. D. ent. Zs., Berlin, **1903**, (295-299).

*Mycteristes inermis* n. sp. Borneo. **Janson**, O. E. London, Trans. Ent. Soc., **1903**, (306-307).

—— *tonkinensis* n. sp. **Moser**, J. Berliner ent. Zs., **48**, 1903, (315).

*Noanda* n. sub. (*Holotrichia*). **Reitter**, E. Brunn, Verh. Natf. Ver., **40**, (1901), 1902, (174).

*Odontria epomeas* n. sp. **Lewis**, J. H. Wellington, Trans. N. Zeal. Inst., **35**, 1903, (272).

*Onthophagus* nn. spp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (272-299).

—— *antillarum* n. sp. St. Vincent and Grenada. **Arrow**, G. J. London, Trans. Ent. Soc., **1903**, (510-511).

*Pachnoda usambarica* n. sp. **Moser**, J. Berliner ent. Zs., **48**, 1903, (318).

*Pachydema* nn. spp. **Reitter**, Brunn, Verh. Natf. Ver., **40**, (1901), 1902, (110-118).

—— *letourneuxi* n. sp. (Chob. m.s.). Afrique. **Pic**, M. Echange, Lyon, **19**, 1903, (113).

*Pachydemocera* n. gen., *P. pubicula*, *P. pubimargo* nn. spp. **Reitter**, Brunn, Verh. Natf. Ver., **40**, (1901), 1902, (105-107).

*Panotrogus* n. gen. **Reitter**, l. c. (164-182).

*Pantolia subcostata* n. sp. Madagascar. **Fairmaire**, L. Naturaliste, Paris, (sér. 2), **23**, 1903, (36).

*Parastasia* nn. spp. **Ohaus**, F. D. ent. Zs., Berlin, **1903**, (223-225).

*Pectinichelus bucharicus* n. sp. **Reitter**, Brunn, Verh. Natf. Ver., **40**, (1901), 1902, (172).

*Pentodon* Hope, notices sur diverses espèces. I. (Russ.) **Jakovlev**, V. E. Rev. Russ. Ent., Jaroslavl, **3**, 1903, (304-305).

*Pentodon foveipennis* n. sp., de la Transcaucasie. **Jakovlev**, V. E. *L.c.* (17-18).

—— *monodon* Fabr. **Schreiner**, J. F. Trd. B. entom. Učen. Kom. M. Zeml., St. Peterburg, III, No. 9, 1902, (11, mit 3 Fig.).

*Philarmostes* nn. spp. **Fairmaire**, L. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (188).

*Pinotus roberti* n. sp. Brazil. **Gahan**, C. J. and **Arrow**, G. J. London, Proc. Zool. Soc., 1903, 2, (250).

*Plaesiorrhina ugandensis* n. sp. British East Africa. **Heath**, E. A. Entomologist, London, 36, 1903, (98).

*Plediana* n. subgen. (*Holotrichia*). **Reitter**, E. Brünn, Verh. Natf. Ver., 40, (1901), 1902, (173).

*Proagosternus rubiginus* n. sp. **Fairmaire**, L. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (196).

*Pseudomacraspis* n. gen. Ecuador. **Ohaus**, F. Berliner ent. Zs., 48, 1903, (229).

*Pygoma* nn. spp. **Fairmaire**, L. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (198-199).

—— *melanura* n. sp. Madagascar. **Fairmaire**, L. Naturaliste, Paris, (sér. 2), 23, 1903, (36).

*Pyrrhopoda rufovarica* n. sp. Madagascar. **Fairmaire**, L. *L.c.* (36).

*Rhizoproctus usambarae* n. sp. Usambara. **Brenske**, E. D. ent. Zs., Berlin, 1903, (298).

*Rhizotrogus* nn. spp. **Reitter**, Brünn, Verh. Natf. Ver., 40, (1901), 1902, (200-223).

*Rhomborrhina gestroi* n. sp. **Moser**, J. Berliner ent. Zs., 48, 1903, (317).

*Rutelula dimorpha* n. sp. Ecuador. **Ohaus**, F. *L.c.* (234).

*Saprosites grenadensis* n. sp. Grenada. **Arrow**, G. J. London, Trans. Ent. Soc., 1903, (514).

*Serica* nn. spp. India. **Sharp**, D. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (469-471).

*Smaragdesthes cinctipennis* n. sp. **Moser**, J. Berliner ent. Zs., 48, 1903, (316).

*Somalibia heydeni* n. sp. Afrika. **Preiss**, P. Wiesbaden, Jahrb. Ver. Natk., 55, 1902, Abt. II, (93-111).

*Sparophysa* (*Physopalpus* subgen) nn. spp. **Reitter**, Brünn, Verh. Natf. Ver., 40, (1901), 1902, (93-303).

*Spileuchlora* n. gen., *S. waterstraii*, *S. hauschildti* nn. spp. **Ohaus**, F. D. ent. Zs., Berlin, 1903, (209-228).

*Spodistes grandis* n. sp. **Sternberg**, C. *L.c.* (300-304).

*Systellorhina* nn. spp. Afrika. **Preiss**, P. Wiesbaden, Jahrb. Ver. Natk., 55, 1902, Abt. II, (93-111).

*Tanyproctocera* n. subgen (*Tanyproctus*) for *Tanyproctus portuensis* n. sp. **Reitter**, E. Brünn, Verh. Natf. Ver., 40, (1901), 1902, (119-120).

*Tanyproctus* nn. spp. **Reitter**, *L.c.* (122-132).

*Taragama* (*Megasoma*) *repanda*, note. **Vaucher**, A. Feuille jeunes natural., Paris, (sér. 4), 33, 1903, (52).

*Theodosia* nn. spp. Borneo. **Janson**, O. E. London, Trans. Ent. Soc., 1903, (305-306).

*Tmesorrhina viridicyanea* n. sp. **Moser**, J. Berliner ent. Zs., 47, 1902, [1903], (318).

*Tocama* n. subgen (*Melolontha*). **Reitter**, E. Brünn, Verh. Natf. Ver., 40, (1901), 1902, (265).

*Trichius oberthuri* n. sp. **Moser**, J. Berliner ent. Zs., 47, 1902, [1903], (283-286).

*Trochaloschema medusa* n. sp. **Reitter**, Brünn, Verh. Natf. Ver., 40, (1901), 1902, (141).

*Trox borgognoi* n. sp. Soudan français. **Marchand**, E. Nantes, Bul. Soc. Sci. Nat., (sér. 2), 2, (2<sup>e</sup> semest.), 1902, (331-343, av. 1 pl.).

*Urozya vincentiae* n. sp. St. Vincent. **Arrow**, G. J. London, Trans. Ent. Soc., 1903, (510).

*Xanthotrogus* n. subgen (*Rhizotrogus*) for *R. fortis*. Turkestan. **Reitter**, E. Brünn, Verh. Natf. Ver., 40, (1901), 1902, (212).

*Xestotrogus* n. subgen (*Rhizotrogus*). **Reitter**, E. *L.c.* (211).

*Xorema* n. subgen (*Anomalophylla*)  
for *Anomalophylla thibetana* n. sp.  
Reitter, E. l.c. (296).

## CICINDELIDAE.

## GENERAL.

Alluaud, Ch. Observations sur divers Cicindélides de Madagascar et description d'espèces nouvelles. Paris, Ann. soc. ent., 71, (2° semest.), 1902, (637-642, av. fig.).

Öciserin, T. Mémoire sur les Cicindélides des voyages de N. Zarudny dans la Perse orientale. St. Peterburg, Hor. Soc. Ent. Ross., 36, 1903, (1-21).

——— Notice sur quelques *Cicindelidae*. Rev. Russ. Ent., Jaroslavl, 3, 1903, (229).

——— Observations sur quelques Cicindélides de la collection Semenov. St. Peterburg, Hor. Soc. Ent. Ross., 36, 1903, (90-107).

Osiki, E. Die Cicindeliden Ungarns. Math.-natw. Ber. Ungarn, Leipzig, 18, (1900), 1903, (121-144).

Davis, C. A. The *Cicindelidae* of Rhode Island. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (270-273).

Horn, W. List of the *Cicindelidae* of Mexico and on their relationship with the species of the United States. New York, N.Y., J. Ent. Soc., 11, 1903, (213-221).

——— Cicindélides . . . Sumatra. Bruxelles, Ann. Soc. ent. Belgique, 45, 1901, (84-85).

——— Ueber die Cicindeliden-Ausbeute von Guy A. K. Marshall aus Rhodesia, Manica und Gazaland. D. ent. Zs., Berlin, 1903, (315-317).

——— On the *Cicindelidae* of southern Venezuela, collected by Edward A. Klages, 1898-1900. Washington, D.C., Proc. Ent. Soc., 5, 1903, (331-334).

Robinson, H. C. Report on the tiger beetles (*Cicindelidae*) from Malay peninsula. Fascic. Malay. Zool., 1, (179-183).

(x 2-0053)

## SPECIAL.

*Cicindela* nn. spp. Madagascar. Alluaud, C. Paris, Ann. soc. ent., 71, (2° semest.), 1902, (637-642, av. fig.).

——— nn. spp. Persia. Öciserin, T. St. Peterburg, Hor. Soc. Ent. Ross., 36, 1903, (5, 16).

——— nn. spp. Horn, W. D. ent. Zs., Berlin, 1903, (421-423).

——— *campestris*, the life history. Enoch, F. London, Proc. Ent. Soc., 1903, (XV-XIX).

——— *4-guttata* n. var. Davis, C. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (270-273).

——— *hentsii*, note. Hood, L. E. l.c. (113-116).

——— *rectilatera*, hal. its. Mitchell, J. D. Washington, D.C., Proc. Ent. Soc., 5, 1903, (108-110).

——— *schaefferi* n. sp. Horn, W. New York, N.Y., J. Ent. Soc., 11, 1903, (213).

——— *rickhami* n. sp. Horn, W. D. ent. Zs., Berlin, 1903, (182).

*Collyris tonkinensis* n. sp. Indo-Chine française. Fleutiaux, E. Paris, Ann. soc. ent., 71, (2° semest.), 1903, (569-580).

*Dronica (Cosmema)* nn. spp. Afrika. Horn, W. l.c. (316-320).

——— (*Myrmecoptera*) *hildebrandti* n. sp. Horn, W. l.c. (421).

*Megalomma punctipenna* n. sp. Madagascar. Fairmaire, L. Paris, Ann. soc. ent., 72, (1° semest.), 1903, (181).

*Paridexia fulvipes: australis* n. subsp. Alluaud, C. l.c. 71, (2° semest.), 1902, (637-642).

*Tetracha carolina*, habits. Mitchell, J. D. Washington, D.C., Proc. Ent. Soc., 5, 1903, (108-110).

——— *klagesi* n. sp. Venezuela. Horn, W. l.c. (332).

## CARABIDAE.

## GENERAL.

Bouchard, J. Contribution à l'étude des Carabiques de Sumatra. Paris, Ann. soc. ent., 72, 1903, (177-180).



**Carrot, A.** Notes relatives à l'étude de quelques *Pogonides*. Création d'un sous-genre. Description d'espèces et de variétés nouvelles. Echange, Lyon, **19**, 1903, (133-136, 137-138, 150-152).

**Čičerin, T.** *Chaetodactylini* subtribus nova *Platysmatinorum*. St. Peterburg, Hor. Soc. Ent. Ross., **36**, 1903, (157-163).

**Giard, A.** Les glandes pygidiennes des Carabides. Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (222).

**Holtz, M.** Laufkäfer und Skorpione. Insektenbörse, Leipzig, **20**, 1903, (339).

**Rosenberg, E. C.** Larvæ of the groups *Lebiini* and *Odacanthini* the genera *Lebia* and *Odacantha*. (Danish with an English summary) Kjöbenhavn, Ent. Medd., (Ser. 2), **2**, 1903, (1-21, 1 pl.).

**Sharp, D.** Coleoptera III. Coleoptera Caraboidea. Fauna Hawaiensis, vol. III. (175-292, pls. VI-VII); [Summary], Entomologist, London, **36**, 1903, (263).

**Sloane, T. G.** Studies in Australian Entomology No. XII. New Carabidae. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, **28**, 1903, (566-642).

#### SPECIAL.

*Abacetus* nn. spp. Madagascar, Annam, Sumatra. **Čičerin, T.** St. Peterburg, Hor. Soc. Ent. Ross., **36**, 1903, (46-56).

*Adrimus uruguayicus* n. sp. Uruguay. **Čičerin, T.** Lc. (59).

*Allocinopus* n. gen., *A. sculpticollis* n. sp. New Zealand. **Brown, T.** Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (607-609).

*Amara*, notice sur quelques espèces déserticoles; 1 n. subgen., 2 nn. spp. Transcaspiæ, Mongolie. **Čičerin, T.** Rev. Rus. Ent., Jaroslavl', **3**, 1903, (219-222).

*Anchomenus walkeri* n. sp. New Zealand. **Brown, T.** Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (456-457).

*Anchonymus* n. gen., *A. agonoides* n. sp. **Sharp, D.** Fauna Hawaiensis, III, 1903, (199, pl. vi).

*Anchotefflus* n. gen., *A. gracilis*, *A. elegans* nn. spp. **Sharp, D.** Lc. (195-196).

*Androya* n. gen., *A. alluaudi*, *A. decrocei* nn. spp. Madagascar. **Čičerin, T.** St. Peterburg, Hor. Soc. Ent. Ross., **36**, 1903, (160-161).

*Anoplitelmus* nn. spp. **Csiki, E.** Budapest, Ann. Hist. Nat. Mus. Nat. Hung., **1**, 1903, (441-443).

*Apteromesus* n. gen., *A. maculatus* n. sp. **Sharp, D.** Fauna Hawaiensis, III, 1903, (211).

*Aptinus creticus* n. sp. **Pic, M.** Echange, Lyon, **19**, 1903, (161).

*Archotefflus* n. subgen. (*Tefflus*). **Kolbe, H. J.** Berlin, SitzBer. Ges. natf. Freunde, **1903**, (225-237).

*Aristochroa* Tsch. *Kaznakovi* n. sp. **Čičerin, T.** Rev. Russ. Ent., Jaroslavl', **3**, 1903, (224-225).

*Atelidium* n. gen., *A. munroi* n. sp. **Sharp, D.** Fauna Hawaiensis, III, 1903, (234-285).

*Atelothorax* n. gen., *A. optatus* n. sp. **Sharp, D.** Lc. (269).

*Atelothrus* n. gen., *A. politus*, *A. limbatus*, *A. longicollis*, *A. constrictus*, *A. longulus*, *A. stenopus*, *A. filipes*, *A. hawaiiensis*, *A. gracilis*, *A. dyscoleus*, *A. depressus*, *A. platynoides*, *A. transiens* nn. spp. **Sharp, D.** Lc. (216-221).

*Atrachyenus* nn. spp. **Sharp, D.** Lc. (194).

*Baryneus* n. gen. for *Anchomenus sharpi* Blackb. **Sharp, D.** Lc. (209, pl. VI).

*Bembidium* nn. spp. **Sharp, D.** Lc. (278-279).

— du groupe des *Tibiale* Duftschm. **Sainte-Claire Deville, J.** Echange, Lyon, **19**, 1903, (181-182).

— *actuarium* n. sp. New Zealand. **Brown, T.** Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (611).

*Blackburnia insignis* var. *kaalensis* n. var. **Sharp, D.** Fauna Hawaiensis, III, 1903, (191).

*Bradycellus distinctus*, réponse partielle à la question de M. F. Picard. **Giard, A.** Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (84).

— *distinctus*, observations. **Picard, F.** Lc. (64).

*Brosconymus* n. gen., *B. optatus* n. sp. **Sharp**, D. Fauna Hawaiiensis, III, 1903, (198).

*Caletor* n. nom. pour *Microcarenus* Tsch. 1903. **Čičerin**, T. Rev. Russ. Ent., Jaroslavl', 3, 1903, (227).

*Carabus*, tableau de détermination des formes du genre (suite). **Lapouge**, G. V. de. Echange, Lyon, 17, 1902, (26-27, 36-38, 42-44, 59-60, 65-66, 73-74, 82-83, 94-95, 100-101, 117-118, 131, 149-150).

— aus Nordafrika. **Born**, P. l.c. (203-204).

— nn. spp. (Russ.) **Semenov**, A. P. Rev. Russ. Ent., Jaroslavl', 3, 1903, (230-232).

— nn. spp. Tibet orient. **Semenov**, A. P. l.c. (349-352).

— subg. *Alipaster* Rtttr. de speciebus formantibus, *C. wilkinsi* n. sp. Kuldsha. (Russ.) **Semenov**, A. P. l.c. (381-383).

— *adonis*, eine neue Form. **Born**, P. Insektenbörse, Leipzig, 20, 1903, (98).

— *auronitens*: *cluniensis* n. subsp. **Born**, P. l.c. (51-52).

— Formen der Normandie und Bretagne. **Born**, P. l.c. (172-173).

— *minusculus* n. sp. Turkestan. (Russ.) **Semenov**, A. P. Rev. Russ. Ent., Jaroslavl', 3, 1903, (297-299).

— *nemoralis*, black variety. **Keys**. Ent. Mag., London, 39, 1903, (174).

— *violaceus*: *provincialis* n. subsp. **Born**, P. Insektenbörse, Leipzig, 20, 1903, (219-220).

— *violaceus* (*Megodontus*). **Chatanay**, J. Feuille jeunes natural., Paris. (sér. 4), 34, 1903, (37).

*Castelnaudia obesa* Casteln., notes, *C. latipennis* n. sp., *C. subvirens* Chaud., notes, *C. porphyriaca* Sl., notes. **Sloane**, T. G. Sydney, N.S.W., Proc. Linn. Soc., N. S. Wales, 28, 1903, (596-599).

*Celanida montana* Casteln., notes. **Sloane**, T. G. l.c. (586).

*Cloenephes fürsteri* n. sp. Malay Archipelago. **Bouchard**, J. Paris, Ann. Soc. ent., 72, 1903, (176).

(N 2-9053)

*Chalcomenus* n. gen., *C. molokaiensis* n. sp. **Sharp**, D. Fauna Hawaiiensis, III, 1903, (206-207).

*Chilotomus tschitscherini* n. sp. Turkestan. **Semenov**, A. Rev. Russ. Ent., Jaroslavl', 3, 1903, (8-13).

*Chlaeminus annamensis* n. sp. Annam. **Čičerin**, T. St. Peterburg, Hor. Soc. Ent. Russ., 36, 1903, (58).

*Chlaenoidius prolixus* Erichs. = *Poecilus funebria* Casteln. = *P. sulcatus* Mad. = *Chlaenoidius planipennis* Mad. *Ch. herbaceus* = *Poecilus resplendens* Casteln. = *P. chlaenoides* Mad. **Sloane**, T. G. Sydney, N.S.W., Proc. Linn. Soc., N. S. Wales, 28, 1903, (624-625).

*Chlaenius melanololicus* n. sp. **Gahan**, C. J. Nat. Hist. Sokotra, (264).

*Cilenum alborirens* n. sp. **Sloane**, T. G. Sydney, N.S.W., Proc. Linn. Soc., N. S. Wales, 28, 1903, (575).

*Clicina lignicola* n. sp. Malay Archipelago. **Bouchard**, J. Paris, Ann. soc. ent., 72, 1903, (169).

*Colpocaccus* n. gen., *C. hawaiiensis*, *C. lanaiensis*, *C. apicalis*, *C. posticatus*, *C. marginatus* nn. spp. **Sharp**, D. Fauna Hawaiiensis, III, 1903, (214-215).

*Colpoles* nn. spp. Madagascar. **Fairmaire**, L. Naturaliste, Paris, (sér. 2), 24, 1902, (286-287).

*Colpodiscus lahainensis* n. sp. **Sharp**, D. Fauna Hawaiiensis, III, 1903, (210).

*Cop'o'abrus*, Beiträge zur Kenntnis der Gattung. **Meyer Dardis**, G. Schaffhausen, Mitt. Schweiz. Entomol. Ges., 10, 1902, (405-410, mit 1 Taf.).

— *pustulifer*: *guerryi* n. subsp. **Born**, P. Insektenbörse, Leipzig, 20, 1903, (124).

*Cychnus aenicollis* n. sp. et n. varr. N. Carolina. **Beutenmüller**, W. New York, N.Y., Bull. Amer. Mus. Nat. Hist., 19, 1903, (511-519, with 2 pls.).

*Cyphotrachelus* n. nom. = *Cyrtoderus* Hope. **Čičerin**, T. Rev. Russ. Ent., Jaroslavl', 3, 1903, (40).

*Derobroscus* n. gen., *D. micans*, *D. politus*, *D. solitarius* nn. spp. **Sharp**, *D. Fauna Hawaiiensis*, III, 1903, (172, 197, pl. VII).

*Deropristus* n. gen., *D. puncticeps*, *D. deroderus* nn. spp. **Sharp**, *D. l.c.* (192).

*Dichrochile cordicollis* n. sp. New Zealand. **Broun**, *T. Ann. Mag. Nat. Hist.*, London, (Ser. 7), 11, 1903, (455-456).

*Disenochus* nn. spp. **Sharp**, *D. Fauna Hawaiiensis*, III, 1903, (201-206).

*Drimostoma* nn. spp. Madagascar. **Čičerin**, *T. St. Petersburg, Hor. Soc. Ent. Ross.*, 36, 1903, (38-64).

*Epactius* Schneid. = *Omophron* Latr. (Russ.) **Semenov**, *A. P. Rev. Russ. Ent.*, Jaroslavl', 3, 1903, (187-190).

*Epicosmus macleayi* n. sp. = *Eudema nobile* MacL.; *Epicosmus* nn. spp.; *E. rockhamptonensis* Castelnau, *E. comptus* Laferté, *E. froggatti*, *E. alternans* Castelnau, *E. elongatus* Castelnau, notes. **Sloane**, *T. G. Sydney, N.S.W., Proc. Linn. Soc., N. S. Wales*, 28, 1903, (568-575).

*Eucalyptocola marcida* n. sp. Australia. **Blackburn**, *T. Adelaide, S. Aust., Trans. R. Soc.*, 27, 1903, (91).

*Eucamptognathus* Chaud., nouvelle étude, 5 nn. spp. Madagascar. **Čičerin**, *T. St. Petersburg, Hor. Soc. Ent. Ross.*, 35, 1903, (204-230).

*Eudromus perrieri* n. sp. Madagascar. **Fairmaire**, *L. Paris, Ann. soc. ent.*, 72, (2° semest.), 1903, (181-182).

*Glycia caerulea* n. sp. Madagascar. **Fairmaire**, *L. Paris, Ann. soc. ent.*, 72, (2° semest.), 1903, (181-259).

*Eumara dolens* n. sp. Uruguay. **Čičerin**, *T. St. Petersburg, Hor. Soc. Ent. Ross.*, 36, 1903, (63).

*Harpalus caliginosus*, *H. pennsylvanicus*, strawberry pests. **Slingerland**, *M. V. Agric. Exp. Sta., New York, (Cornell Station), Ithaca, Bull.*, No. 190, 1901, (143-164, with 15 figs.). [Review], Washington, D.C., U. S. Dept. Agric. Off. Exp. Sta., Rec., 13, 1901, (371-372).

(*Harpalobius*) *soginoides* n. sp. **Sahlberg**, *J. Öfvers. F. Vet. Soc., Helsingfors*, 45, [No. 10], 1902-1903, (1-40).

*Hoploprion* n. nom. = *Prionophorus* Chaud. **Čičerin**, *T. Rev. Russ. Ent., Jaroslavl'*, 31, 1903, (40).

*Hypogeobium* n. nom. = *Hypogium* Tsch. **Čičerin**, *T. l.c.* (40).

*Lebia acutangula* n. sp. Madagascar. **Fairmaire**, *L. Paris, Ann. soc. ent.*, 72, (2° semest.), 1903, (182).

*Leistus* de l'intérieur de la Chine. 5 nn. spp. **Čičerin**, *T. St. Petersburg, Hor. Soc. Ent. Ross.*, 36, 1903, (22-37).

*indus* n. sp. Sikkim. **Čičerin**, *T. Rev. Russ. Ent., Jaroslavl'*, 3, 1903, (109).

*Licinus submarginatus* n. sp. **Sahlberg**, *J. Öfvers. F. Vet. Soc., Helsingfors*, 45, [No. 10], 1902-1903, (3).

*Loxandrus* nn. spp. Cuba, Uruguay. **Čičerin**, *T. St. Petersburg, Hor. Soc. Ent. Ross.*, 36, 1903, (60-61).

nn. spp.; *L. subiridescens* MacL. = *Poecilus atronitens* MacL. = *Platynus nitidipennis* MacL., *L. rufilabris* Casteln., *L. laevigatus* MacL., notes. **Sloane**, *T. G. Sydney, N.S.W., Proc. Linn. Soc., N.S.W.*, 28, 1903, (626-630).

*micanior* n. sp. Australia. **Blackburn**, *T. Adelaide, S. Aust., Trans. R. Soc.*, 27, 1903, (262).

*Macranillus* n. gen., *M. coecus* n. sp. **Sharp**, *D. Fauna Hawaiiensis*, III, 1903, (287).

*Mecodema* nn. spp. New Zealand. **Broun**, *T. Ann. Mag. Nat. Hist.*, London, (Ser. 7), 11, 1903, (451-454).

*Mecomcnus* n. gen., *M. koebeli* n. sp. **Sharp**, *D. Fauna Hawaiiensis*, III, 1903, (230).

*Mecostomus* n. gen., *M. perkinsi* n. sp. **Sharp**, *D. l.c.* (229, pl. VI).

*Mecyclothorax* n. gen., *M. pusillus*, *M. rusticus*, *M. microps*, *M. obscuricornis*, *M. bicolor*, *M. bradyellinus*, *M. lactus*, *M. konanus*, *M. cymindicus*, *M. daptinus*, *M. ovipennis*, *M. iteratus*, *M. oculatus*, *M. longulus*, *M. interruptus*, *M. sobrinus*, *M. aeneus*, *M. cognatus*, *M. robustus*, *M. occultus*, *M. amaroideus* nn. spp. **Sharp**, *D. l.c.* (243-256, pl. VII).

*Megodontus violaceus*. **Florentin**, *R. Feuille jeunes natural.*, Paris, (sér. 4), 34, 1903, (18).

*Melisodera picipennis* Westw. = *Morio piceus* Casteln., notes. **Sloane**, T. G. Sydney, N.S.W., Proc. Linn. Soc., N. S. Wales, **28**, 1903, (588).

*Mesotefflus* n. subgen. (*Tefflus*). **Kolbe**, H. J. Berlin, SitzBer. Ges. natf. Freunde, **1903**, (225-237).

*Mesothricus* n. gen., *M. vagans*, *M. prognathus*, *M. lanaiensis*, *M. tricolor*, *M. hawaiiensis*, *M. truncatus*, *M. collaris*, *M. microps*, *M. abax*, *M. kauaiensis*, *M. optimus*, *M. opacus*, *M. alternans* nn. spp. **Sharp**, D. Fauna Hawaiiensis, III, 1903, (222-228).

*Metaglymma* nn. spp. New Zealand. **Brown**, T. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (454-455).

*Metrocidium* n. gen., *M. brevicolle*, *M. admirandum* nn. spp. **Sharp**, D. Fauna Hawaiiensis, III, 1903, (285-286).

*Metromenus* nn. spp. **Sharp**, D. l.c. (233-242).

*Metrothorax* n. gen., *M. molops*, *M. macrops*, *M. perkinsianus*, *M. haleakalae*, *M. laticollis*, *M. blackburni*, *M. rotundicollis*, *M. curtipes*, *M. extimus*, *M. crassus*, *M. debilis*, *M. discedens* nn. spp. **Sharp**, D. l.c. (269-275).

*Microcarenus* n. nom = *Microcephalus* Dej. **Ölserin**, T. Rev. Russ. Ent., Jaroslavl', **3**, 1903, (40).

*Miscodera artica*, Maine. **Barber**, H. G. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (241).

*Morioidema macoyei* Casteln. = *M. paramattensis* Casteln., notes. **Sloane**, T. G. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, **28**, 1903, (587).

*Moriomorpha adelaidae* Casteln., notes. **Sloane**, T. G. l.c. (588).

*Mysticomenus* n. gen., *M. tibialis* n. sp. **Sharp**, D. Fauna Hawaiiensis, III, 1903, (212).

*Nebria lafresnayei* var. *ferruginipes* n. var. **Pic**, M. Echange, Lyon, **19**, 1903, (129).

*Nesocidium* n. gen., *N. laeticulum*, *N. lahainense*, *N. smaragdinum*, *N. fulgens*, *N. koebeli*, *N. perkinsi*, *N. rude*, *N. corticarium*, *N. atomarium*, *N. scydmaenoides* nn. spp. **Sharp**, D. Fauna Hawaiiensis, III, 1903, (280-284).

*Nesolymnaeum* n. gen. for *Bembidium spurcum* Blackb. **Sharp**, D. l.c. (277).

*Nesomicrops* n. gen., *N. kaudiensis* n. sp. **Sharp**, D. l.c. (286).

*Nomaretus debilis* var. *alpinus* n. var. N. Carolina. **Beutenmüller**, W. New York, N.Y., Bull. Amer. Mus. Nat. Hist., **19**, 1903, (511-519, with 2 pls). Separate. 24.5 cm.

*Notiophilus* Dum., notes sur divers espèces; 2 nn. spp. Altai and Central Asia. **Ölserin**, T. St. Petersburg, Hor. Soc. Ent. Ross., **36**, 1903, (108-117).

———— *hilaris* n. sp. **Friederichs**, K. Allg. Zs. Ent., Neudamm, **8**, 1903, (89).

*Notonomus kingi* Chaud = *N. excisipennis* Sl.; *N. satrapa* Casteln. notes, *notonomus* nn. spp. **Sloane**, T. G. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, **28**, 1903, (600-608).

*Oopteris* nn. spp. New Zealand. **Brown**, T. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (609-611).

*Ophionea forsteri* n. sp. Malay Archipelago. **Bouchard**, J. Paris, Ann. Soc. ent., **72**, 1903, (172).

*Ophonus nigripennis* n. sp. **Sahlberg**, J. Ofvers. F. Vet. Soc., Helsingfors, **45**, [No. 10], 1902-1903, (2).

*Orinocarabus*. **Ganglbauer**, L. Wien, Verh., ZoolBot. Ges., **51**, 1901, (791-798).

*Paranurus dilaticeps* Chaud., notes. **Sloane**, T. G. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, **28**, 1903, (594).

*Pentagonica dichroa* n. sp. **Sloane**, T. G. l.c. (636).

*Penthophonus* (Reitt. 1900) Tsch. 1901; *P. astutus* n. sp. Syria. **Ölserin**, T. Rev. Russ. Ent., Jaroslavl', **3**, 1903, (44-45).

*Perigona tricolor* Casteln. = *Siltopia* id. Casteln., *P. rufilabris* MacL. = *Trechus* id. MacL. = *P. basalis*, Putz; *P. australica* n. sp. **Sloane**, T. G. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, **28**, 1903, (635).

*Pheraia* n. gen. = *Teraphis castelnau* (nom. praec.), *Ph. melbournensis* Casteln., notes. **Sloane**, T. G. l.c. (591).

*Phorticosomus calcaratus* n. sp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (261).

- Platynus* nn. spp. N. Carolina. **Beutenmüller**, W. New York, N.Y., Bull. Amer. Mus. Nat. Hist., **19**, 1903, (516-517).
- nn. spp. **Sharp**, D. Fauna Hawaiiensis, III, 1903, (228-229).
- *marginellus* **Erichs.** = *Anchomenus nigro-aeneus* **Newm.**; *P. queenslandicus* n. sp. **Sloane**, T. G. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, **28**, 1903, (632-633).
- Platysma*, etude sur divers espèces des Alpes occidentales. **Sainte-Claire-Deville**, J. Paris, Ann. soc. ent., **71**, (2<sup>e</sup> semest.), 1902, (588-619).
- Platysma* (Bon.) **Tsch.**, ueber den Gattungsnamen. **Čičerin**, T. Rev. Russ. Ent., Jaroslavl, **3**, 1903, (218).
- (Bon.) **Tsch.** nn. spp. **Thibet**. **Čičerin**, T. Lc. (223).
- *astutum* n. sp. Caucasia. **Čičerin**, T. Lc. (107-108).
- *jazartii* n. sp. Turkestan. **Čičerin**, T. Rev. Russ. Ent., Jaroslavl, **3**, 1903, (226-227).
- *satunini* n. sp. Transcaucasia. **Čičerin**, T. Lc. (24-25).
- Pogonoglossus* nn. spp. Sumatra. **Bouchard**, J. Paris, Ann. soc. ent., **72**, 1903, (180).
- Pogonoidius* n. subgen. **Carret**, A. Echange, Lyon, **19**, 1903, (133).
- Pogonus* nn. spp., n. var. **Carret**, A. Lc. (135-137).
- Prodisenochus* n. gen. for *Dissenochus terebratus* **Blackb.** **Sharp**, D. Fauna Hawaiiensis, III, 1903, (210).
- Pseudobroschus* n. gen., *P. lentus* n. sp. **Sharp**, D. Lc. (pl. vi).
- Pseudoceneus iridipennis* **Casteln.**, notes. **Sloane**, T. G. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, **28**, 1903, (623).
- Pterostichus* nn. spp. New Zealand. **Brown**, T. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (604-607).
- nn. varr. **Pic**, M. Echange, Lyon, **19**, 1903, (153-155).
- Pyrrotachys constricticeps* **Sl.** (emend. = *P. constrictipes*, **Sl.**) notes. **Sloane**, T. G. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, **28**, 1903, (583).
- Rhaebolestes* n. gen., *R. walkeri* n. sp. **Sloane**, T. G. Lc. (589).
- Sarticus sulcatus* **MacL.** = *Coronocanthus sulcatus*, **MacL.** = *S. quadrisulcatus* **Chaud.**, notes; *S. blackburni* **Sl.**, *S. cyaneocinctus* **Chaud.** = *Feronia aureomarginata* **Casteln.** = *F. saphyromarginata* **Casteln.**, *S. obesus* **Chaud.**, *S. emeraldipennis* **Casteln.**, *S. habitans* **Sl.**, *S. mac'eayi* **Sl.**, notes; *Sarticus* nn. spp. **Sloane**, T. G. Lc. (613-620).
- Scopoles* nn. spp. **Sloane**, T. G. Lc. (639-640).
- *viridis* n. sp. New Zealand. **Brown**, T. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (612).
- Stenotelus* n. gen., *S. opacus* n. sp. Malay Archipelago. **Bouchard**, J. Paris, Ann. Soc. ent., **72**, 1903, (174-175).
- Strictotellus* n. subgen. (*Tefflus*). **Kolbe**, H. J. Berlin, SitzBer. Ges. natf. Freunde, **1903**, (225-237).
- Tachys amplipennis* **MacL.**, *T. sexstriatus* **MacL.**, notes. *Tachys* nn. spp. **Sloane**, T. G. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, **28**, 1903, (576-641).
- Tarastethus* nn. spp. New Zealand. **Brown**, T. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (457-458).
- Tefflus* nn. spp. **Kolbe**, H. J. Berlin, SitzBer. Ges. natf. Freunde, **1903**, (225-237).
- Thriscothorax* n. gen., *T. filipes*, *T. gracilis*, *T. palustris*, *T. modestus*, *T. subconstrictus*, *T. molokaiaae*, *T. perstriatus*, *T. mundanus*, *T. constrictus*, *T. insolitus*, *T. discedens*, *T. chalcosus*, *T. apicalis*, *T. perkinsi*, *T. variipes*, *T. ducalis*, *T. laticollis*, *T. bradyderus*, *T. platysminus*, *T. argutor* nn. spp. **Sharp**, D. Fauna Hawaiiensis III, 1903, (257-268).
- Trechus (Anophthalmus) calli* n. sp. Alpes-Maritimes. **Sainte-Claire Deville**, J. Ann. soc. entol., Paris, **71**, 1902, [1903], (695-700).
- Trichosternus* nn. spp. New Zealand. **Brown**, T. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (602-601).

## HALIPLIDAE.

## GENERAL.

**Semenov, A. P.** Les rapports naturels des *Haliplidae*. (Russ.) Rev. Russ. Ent., Jaroslavl', **3**, 1903, (187-190).

## SPECIAL.

*Haliplus alluandi* n. sp. Madagascar. **Régimbart, M.** Paris, Ann. soc. ent., **72**, 1903, (1).

## DYTISCIDAE.

*Acilius canaliculatus*, observations. **Picard, F.** Feuille jeunes natural., Paris, (sér. 4), **33**, 1903, (64).

*Bidessus* nn. spp. Madagascar. **Régimbart, M.** Paris, Ann. soc. ent., **72**, 1903, (8-9).

——— nn. spp. Inde méridionale. **Régimbart, M.** l.c. (2<sup>e</sup> semest.), 1903, (331-332).

*Canthidrus flavosignatus* n. sp. Madagascar. **Régimbart, M.** l.c. 1903, (13).

*Clypeodytes sordidipennis* n. sp. Madagascar. **Régimbart, M.** l.c. (6).

*Copelatus unguicularis* n. nom. and n. sp. Madagascar. **Régimbart, M.** l.c. (17, 19)

*Perophydrus* nn. spp. Madagascar. **Régimbart, M.** l.c. (3-5).

*Hydrotratus* nn. spp. Madagascar. **Régimbart, M.** l.c. (11-12).

*Ilythoporus nilghiricus* n. sp. Inde méridionale. **Régimbart, M.** l.c. (2<sup>e</sup> semest.), 1903, (331).

*Ilyphydrus minutissimus* n. sp. Madagascar. **Régimbart, M.** l.c. 1903, (5).

*Laccophilus* nn. spp. Madagascar. **Régimbart, M.** l.c. (14-15).

*Neptosternus* nn. spp. Madagascar. **Régimbart, M.** l.c. (15-16).

*Pachymectis* n. gen., *P. ventricosus* n. sp. Madagascar. **Régimbart, M.** l.c. (7-8).

## GYRINIDAE.

*Aulonogyrus cristatus* n. sp. Madagascar. **Régimbart, M.** Paris, Ann. soc. ent., **72**, 1903, (21).

*Orecolgyrus purpureus* var. *meridionalis* n. var. and *O. attenuatus* n. sp. Madagascar. **Régimbart, M.** l.c. (23-24).

## HYDROPHILIDAE.

## GENERAL.

**Régimbart, M.** Contribution à la faune Indo-Chinoise (19<sup>e</sup> Mémoire): *Hydrophilidae*. Paris, Ann. soc. ent., **72**, 1903, (52-64).

**Sainte Claire Deville, J.** Remarques sur les *Hydrophilidae* de la faune française. Echange, Lyon, **17**, 1902, (75-78, 83-85); **19**, 1903, (103-104, 111-112).

## SPECIAL.

*Agraphydrus* n. gen., *A. punctatellus* n. sp. Madagascar. **Régimbart, M.** Paris, Ann. soc. ent., **72**, 1903, (33-34).

*Amphiops* nn. spp. Madagascar. **Régimbart, M.** l.c. (43-44).

——— nn. spp. Indo-Chine. **Régimbart, M.** l.c. (61-62).

——— *lateritius* n. sp. **Fairmaire, L.** l.c. (2<sup>e</sup> semest.), 1903, (185).

*Berosus* nn. spp., *B. villosulus* var. *dilutus* n. var. Madagascar. **Régimbart, M.** l.c. 1903, (37-39).

——— *nigropictus* n. sp. Indo-Chine. **Régimbart, M.** l.c. (60).

*Cercyon* nn. spp. Inde méridionale. **Régimbart, M.** l.c. (2<sup>e</sup> semest.), 1903, (337-338).

——— nn. spp. Madagascar. **Bedel, in litt.** **Régimbart, M.** l.c. 1903, (47-50).

*Coelostoma aeneolum* n. sp. Inde méridionale. **Régimbart, M.** l.c. (2<sup>e</sup> semest.), 1903, (237).

——— *phalacroides* n. sp. Madagascar. **Régimbart, M.** l.c. 1903, (44).

*Cyclonotum muelleri*† n. sp. Elbe. **Meunier, F.** Berlin, Jahrb. geol. Landesanst., **21**, 1901, Abh. auss. St. Pers., (31-38).

*Cylomissus* n. gen., *C. glabratus* n. sp. New Zealand. **Brown, T.** Ann. Mag. Nat. Hist., London (Ser 7) **41** 1903, (613).

- Dactylosternum pyguraeum* n. sp. Madagascar. Régimbart, M. Paris, Ann. soc. ent., 72, 1903, (45).
- Epimetopus maindrom* n. sp. Inde méridionale. Régimbart, M. l.c. (2<sup>e</sup> semest.), 1903, (338).
- Globaria subopaca* n. sp. Madagascar. Régimbart, M. l.c. 1903, (41).
- Helochares* nn. spp. Indo-Chine. Régimbart, M. l.c. (53-54).
- varr., nn. varr. et nn. spp. Madagascar. Régimbart, M. l.c. (25-28).
- Helophorus* nn. spp. Ganglbauer, L. Wien, Verh. ZoolBot. Ges., 51, 1901, (312-332).
- Hydraena* nn. spp. Ganglbauer, L. l.c. (312-332).
- *decolor* n. sp. Ste. Claire-Deville, J. Echange, Lyon, 19, 1903, (111-112).
- *marginicollis* n. sp. Madagascar. Régimbart, M. Paris, Ann. soc. ent., 72, 1903, (51).
- Hydrobius atriceps* n. sp. Madagascar. Régimbart, M. l.c. (1-51).
- *tessellatus* in Pennsylvania. Bradley, J. C. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (23).
- Hydrochus annamita* n. sp. Indo-Chine. Régimbart, M. Paris, Ann. soc. ent., 72, 1903, (64).
- *tenuis* n. sp. Fairmaire, L. l.c. (2<sup>e</sup> semest.), 1903, (185).
- Hydrophilus cambodiensis* n. sp. Indo-Chine. Régimbart, M. l.c. 1903, (53).
- *cultrifer* n. sp. Madagascar. Régimbart, M. l.c. (25).
- *piceus*, note. Poujade, G. A. Paris, Bul. soc. ent., 1902, (238).
- Hydroporus bilineatus* Sturm., an addition to the British list. Chitty, A. J. Ent. Mag., London, 39, 1903, (43).
- Laccobius* nn. spp. Madagascar. Régimbart, M. Paris, Ann. soc. ent., 72, 1903, (34-35).
- nn. spp. Indo-Chine. Régimbart, M. l.c. (58-59).
- *discicollis* n. sp. Inde méridionale. Régimbart, M. l.c. (2<sup>e</sup> semest.), 1903, (336).
- Limnobius rufipennis* n. sp. Inde méridionale. Régimbart, M. l.c. (336).
- Ochthebius* nn. spp. Ganglbauer, L. Wien, Verh. ZoolBot. Ges., 51, 1901, (312-332).
- (*Cheiloctebius*) nn. spp. Sahlberg, J. Öfvers. F. Vet. Soc., Helsingfors, 45, [No. 10], 1902-1903, (5-6).
- *alluaudi* n. sp. Madagascar. Régimbart, M. Paris, Ann. soc. ent., 72, 1903, (50).
- Paracymus* nn. spp. Madagascar. Régimbart, M. Paris, Ann. soc. ent., 72, 1903, (32-33).
- Philydrus* nn. spp. Madagascar. Régimbart, M. l.c. (28-32).
- nn. spp. Indo-Chine. Régimbart, M. l.c. (55-58).
- nn. spp. Inde méridionale. Régimbart, M. l.c. (2<sup>e</sup> semest.), 1903, (335).
- *hamifer* n. sp. Ganglbauer, L. Wien, Verh. ZoolBot. Ges., 51, 1901, (312-332).
- Rygmodes nigripennis* n. sp. New Zealand. Broun, T. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (612-613).
- Spercheus hovanus* n. sp. Fairmaire, L. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (186).
- Zeadolopus* n. gen. *Z. spinipes* n. sp. New Zealand. Broun, T. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (614).

## SILPHIDAE.

## GENERAL.

Bordas, L. L'appareil digestif des Silphidae. Paris, C. R. Acad. sci., 137, 1903, (344-346).

## SPECIAL.

*Aclypea sculpturata* n. sp. l'Inde. Grouvelle, A. Paris, Ann. soc. ent., 72, 1903, (125).

*Catops* nn. spp. Portevin, G. l.c. (166-167).

*Choleva doderoi* n. sp. **Brett**, J. Soc. Entomol., Zürich, 17, 1903, (169).

—— *macleayi* n. sp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., 27, 1903, (94).

*Cholevomorpha* nn. spp. Australia. **Blackburn**, T. l.c. (95-96).

*Clambus tropicus* n. sp. Australia. **Blackburn**, T. l.c. (97).

*Dissochaetus* nn. spp. S. America. **Portevin**, G. Paris, Ann. soc. ent., 72, 1903, (159-162).

*Estadia* n. gen., *E. capito* n. sp. Madagascar. **Fairmaire**, L. l.c. (2<sup>e</sup> semest.), 1903, (183-184).

*Eucatops* n. gen., *E. curripes*, *E. ater*, *E. grouellei*, *E. rufescens*, *E. oblongus* nn. spp. S. America. **Portevin**, G. l.c. 1903, (162-164).

*Hydnobius tibialis* n. sp. **Sahlberg**, J. Öfvers. F. Vet. Soc., Helsingfors, 45, [No. 10], 1902-1903, (9).

*Leonhardia reitteri* n. sp. Bosnien. **Brett**, J. Soc. Entomol., Zürich, 17, 1902, (89).

*Liodes bruneicollis* Mann. in litt., 3 nn. spp. **Sahlberg**, J. Öfvers. F. Vet. Soc., Helsingfors, 45, [No. 10], 1902-1903, (10-14).

*Nargus* nn. spp. **Portevin**, G. Paris, Ann. soc. ent., 72, 1903, (157).

*Spathosternum* n. gen., *S. haemorrhoidale* n. sp. Bolivia. **Portevin**, G. l.c. (165).

## SCYDMAENIDAE.

*Cyrtoscydmus apulicus* n. sp. **Pic**, M. Exchange, Lyon, 17, 1902, (23).

## PSELAPHIDAE.

### GENERAL.

**Raffray**, A. Psélaphides recueillis dans le sud de Madagascar par T. Ch. Alluaud. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (315-330, av. fig.).

### SPECIAL.

*Acylopselaphus* nn. spp. Madagascar. **Raffray**, A. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (327-329).

*Aloxomidus* n. gen. verwandt mit *Calarus* Roffr., *A. variolosus* n. sp. **Raffray**, A. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (34-35, Taf. I).

*Apoterus lucidus* n. sp. **Raffray**, A. l.c. (31-32).

*Articerus nitidicollis* n. sp. **Raffray**, A. l.c. (97, Taf. II).

*Batraxis* nn. spp. **Raffray**, A. l.c. (57-59).

*Batriscenus* n. gen. verwandt mit *Batriscodes*. *B. iridescens*, *B. serraticornis*, *B. birónis*, *B. irregularis*, *B. incertus*, *B. chloroticus*, *B. trivialis*, *B. validicornis*, *B. mucronatus*, *B. armaticornis*, *B. caeremosus* nn. spp. **Raffray**, A. l.c. (48-56, Taf. I-II).

*Batriscodes* nn. spp. **Raffray**, A. l.c. (45-47, Taf. II).

*Batrismoma* n. gen., *B. strigicollis* n. sp. Madagascar. **Raffray**, A. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (316).

*Birónia* n. gen. verwandt mit *Claviger*. *B. cavernosa* n. sp. **Raffray**, A. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (99-100, Taf. II).

*Brachygluta trochalis* n. sp. Madagascar. **Raffray**, A. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (320).

*Bryazella* n. gen., *B. spectralis* n. sp. Madagascar. **Raffray**, A. l.c. (319).

*Bythinus cythereias* n. sp. **Pic**, M. Exchange, Lyon, 19, 1903, (161).

*Calarus* n. gen. verwandt mit *Amudrocerus* Raffr. *C. puncticeps*, *C. dubius*, *C. semipunctatus* nn. spp. **Raffray**, A. Budapest. Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (32-34).

*Comatopselaphus puncticollis* Raffr., Beschreibung. 3 nn. spp. **Raffray**, A. l.c. (59-61).

*Cratna variabilis* n. sp. **Raffray**, A. l.c. (56-57).

*Ctenisophus papuanus* n. sp. **Raffray**, A. l.c. (93-94).

*Cyathiger* nn. spp. **Raffray**, A. l.c. (89-92, Taf. II).

*Diarrogus* n. gen. verwandt mit *Trimidodytes* Raffr. *D. pubescens* n. sp. **Raffray**, A. l.c. (36-37, Taf. I).



*Elasmatus* n. gen., *E. lamellipes* n. sp. **Raffray**, A. l.c. (97-98, Taf. II).

*Epithematus* n. gen. verwandt mit *Pteroplectus* Raffr., *E. nitidus* n. sp. **Raffray**, A. l.c. (39-40, Taf. I).

*Euplectus* nn. spp. Madagascar. **Raffray**, A. Paris, Ann. soc. ent., **72**, (2<sup>e</sup> semest.), 1903, (315).

— *anguinus* n. sp. **Raffray**, A. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., **1**, 1903, (37-38).

*Ezedrus* n. gen. verwandt mit *Ozarthrus*. *E. caviceps* n. sp. **Raffray**, A. l.c. (47-48, Taf. II).

*Filiger batavianus* n. sp. **Raffray**, A. l.c. (92).

*Glapharsenus* n. gen. verwandt mit *Nedarassus* Raffr. *G. asperatus*, *G. punctatus*, *G. microphthalmus* var. *sublaevis*, *G. latus* nn. spp. **Raffray**, A. l.c. (86-89, Taf. I).

*Mechanicus papuanus* n. sp. **Raffray**, A. l.c. (31).

*Mesoplatys cribricollis* n. sp. **Raffray**, A. l.c. (44).

*Microplectus* nn. spp. **Raffray**, A. l.c. (40-44, Taf. II).

*Philopis tuberculiceps* n. sp. **Raffray**, A. l.c. (35-36).

*Philonthus coracion* n. sp. **Peyerimhoff**, P. de. France. Paris, Bull. soc. ent., **1902**, (246-247).

*Pselaphophus sulciceps* n. sp. **Raffray**, A. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., **1**, 1903, (92-93).

*Pyridicerus* nn. spp. **Raffray**, A. l.c. (29-30).

*Rabyxis* nn. spp. Madagascar. **Raffray**, A. Paris, Ann. soc. ent., **72**, (2<sup>e</sup> semest.), 1903, (317-318).

*Reichenbachia* nn. spp. **Raffray**, A. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., **1**, 1903, (61-75, 1 Taf.).

— nn. spp. Madagascar. **Raffray**, A. Paris, Ann. soc. ent., **72**, (2<sup>e</sup> semest.), 1903, (321-325).

*Rytus* nn. spp. **Raffray**, A. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., **1**, 1903, (95-96).

*Stictus corrugatus* n. sp. **Raffray**, A. l.c. (144).

*Sunorfa* nn. spp. **Raffray**, A. l.c. (76-86, Taf. I).

*Syrphaphesina* n. gen., *S. plicicentrus* n. sp. **Raffray**, A. l.c. (100-101, Taf. II).

*Taphronethus longisina* n. sp. **Raffray**, A. l.c. (95).

*Thesastes elegantulus* Raffr., faunistisch, 2 nn. spp. **Raffray**, A. l.c. (38-39).

*Tyromorphus cribricollis* n. sp. **Raffray**, A. l.c. (94).

*Zethopsus papuanus* n. sp. **Raffray**, A. l.c. (30-31).

## STAPHYLINIDAE.

*Aleochara gracilicornis* (nom. nud.) **Fauvel** MSS. in **Slosson**, A. T. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (4-8).

— *opacicollis* n. sp. **Bernhauer**, M. Wien, Verh. ZoolBot. Ges., **52**, 1902, (695-705).

*Ancaeus försteri* n. sp. Ostindien. **Bernhauer**, M. Stettiner ent. Ztg., **64**, 1903, (36).

*Anthobium* nn. spp. **Bernhauer**, M. Wien, Verh. ZoolBot. Ges., **52**, 1902, (695-705).

— *pulcherrimum* n. sp. **Bernhauer**, M. l.c. **51**, 1901, (651-655).

*An'hophagus* nn. spp. **Luse**, G. l.c. (505-530).

*Arpedium* nn. spp. **Bernhauer**, M. l.c. (695-705).

*Atheta* (*Thiobaena*) *cephalotes* n. sp. l.c. **51**, 1901, (651-655).

— *islandica* = *smolkai* Ryb. **Bernhauer**, M. l.c. (695-705).

*Bledius boenicus* n. sp. **Bernhauer**, M. l.c. **52**, 1902, (695-705).

— *fischeri* n. sp. Ostindien. **Bernhauer**, M. Stettiner ent. Ztg., **64**, 1903, (35).

*Dolitobius*, Revision der palaarktischen Arten, nn. spp. **Luse**, G. Wien, Verh. ZoolBot. Ges., **51**, 1901, (662-746).

— *variegatus* n. sp. **Bernhauer**, M. l.c. **52**, 1902, (695-705).

*Borolinus* n. gen., *B. borneensis* n. sp. **Bernhauer**, M. D. ent. Zs., Berlin, **1903**, (133-134).

*Bryocharis*, Revision der paläarktischen Arten. **Luze**, G. Wien, Verh. ZoolBot. Ges., **51**, 1901, (662-746).

*Bryoporus*, Revision der paläarktischen Arten, nn. spp. **Luze**, G. l.c. (662-746).

*Callospenius* n. gen. = *Eupsenius* **Wasmann**, **Wasmann**, E. D. ent. Zs., Berlin, **1903**, (236).

*Conosoma pictum* n. sp. Ostindien. **Fauvel** in **Bernhauer**, M. Stettiner ent. Ztg., **64**, 1903, (26).

*Cryptobium fruhstorferi* n. sp. Ostindien. **Bernhauer**, M. l.c. (30).

*Ectioxenia brevipennis* n. sp. Texas. **Brues**, C. T. "Contributions from the Zoological Laboratory of the University of Texas. No. 32." Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (184-188, with 1 pl.).

*Heterosoma* n. gen. (~ *Achenium*), H. *dohrni* n. sp. Ostindien. **Bernhauer**, M. Stettiner ent. Ztg., **74**, 1903, (33).

*Homalota alpigrada* nom. nud. **Fauvel** MSS. in **Slosson**, A. T. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (4-8).

*Homalium rufulare*, mœurs et métamorphoses. **Xamheu**. Naturaliste, Paris, (sér. 2), **25**, 1903, (55).

*Hydrogeus*. **Luze**, G. Wien, Verh. ZoolBot. Ges., **52**, 1902, (505-530).

*Ilyobates*. **Bernhauer**, M. l.c. (695-705).

*Lamprinodes* n. gen., *L. hammarstroemi* n. sp. **Luze**, G. l.c. **51**, 1901, (181-182).

*Lathrobium rodli* n. sp. **Bernhauer**, M. l.c. **52**, 1902, (695-705).

——— *sumatrense* n. sp. **Bernhauer**, M. Stettiner ent. Ztg., **64**, 1903, (31).

*Leptochirus* nn. spp. **Bernhauer**, M. D. ent. Zs., Berlin, **1903**, (126-132).

*Medon granulicollis* n. sp. Ostindien. **Bernhauer**, M. Stettiner ent. Ztg., **64**, 1903, (32).

*Mycetoporus* nn. spp. **Luze**, G. Wien, Verh. ZoolBot. Ges., **51**, 1901, (662-746).

——— *zeithammeri* n. sp. **Bernhauer**, M. l.c. **52**, 1902, (695-705).

*Myloena kraatzii* Sharp., new to Ireland. **Chaster**, G. W. Irish Nat., Dublin, **12**, 1903, (167).

*Myrmedonia* nn. spp. Ostindien. **Bernhauer**, M. Stettiner ent. Ztg., **64**, 1903, (21-24).

*Omalium italicum* n. sp. **Bernhauer**, M. Wien, Verh. ZoolBot. Ges., **52**, 1902, (695-705).

*Oxytelus lucens* n. sp. Ostindien. **Fauvel** in **Bernhauer**, M. Stettiner ent. Ztg., **64**, 1903, (34).

*Philonthus* nn. spp. Ostindien. **Fauvel** and **Bernhauer**, M. l.c. (26-29).

——— *glenelgi* n. sp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (91-182).

——— *ustulatus* (= *ornatipennis* Reitt.), Synonymie. **Bernhauer**, M. Wien, Verh. ZoolBot. Ges., **52**, 1902, (699).

*Phyllocladepa devillei* n. sp. **Bernhauer**, M. l.c. (695-705).

*Priochirus* nn. spp. **Bernhauer**, M. D. ent. Zs., Berlin, **1903**, (146-153).

*Quedius lederi* n. spp. **Reitter** in **Bernhauer**, M. Wien, Verh. ZoolBot. Ges., **52**, 1902, (695-705).

——— *nelsonensis* n. sp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (93).

——— *rubripennis* n. sp. **Bernhauer**, M. Wien, Verh. ZoolBot. Ges., **51**, 1901, (651-655).

*Sipalia* (*Geostiba*) *solarii* n. sp. **Bernhauer**, M. l.c. **52**, 1902, (695-705).

*Tachinus sahlbergi* = (*furcatus* **Luze** = *luzei* **Bernh.**), *T. bicuspidatus* = (*abscanditus* **Luze**). **Bernhauer**, M. l.c. (697).

*Tachyporus* n. spp. **Luze**, G. l.c. **51**, 1901, (146-185).

*Termitogaster texana* n. sp. Texas. **Brues**, C. T. "Contributions from the Zoological Laboratory of the University of Texas. No. 32." Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (184-188, with 1 pl.).

*Thinobius klimai* n. sp. **Bernhauer**, M. Wien, Verh. ZoolBot. Ges., **52**, 1902, (695-705).

*Thoracochirus* n. gen. (~ *Priochirus*), *T. foersteri* n. sp. **Bernhauer**, M. D. ent. Zs., Berlin, **1903**, (155-156).

*Trogophloeus* nn. spp. **Bernhauer, M.**  
Wien, Verh. ZoolBot. Ges., **51**, 1901,  
(651-655).

—— *bodemeyeri* n. sp. **Bernhauer, M.** *l.c.* **52**, 1902, (695-705).

—— (*Carpalimus*) *corcyreus* n. sp. **Sahlberg, J.** Öfers. F. Vet. Soc., Helsingfors, **45**, [No. 10], 1902-1903, (8).

—— *maritimus* n. sp. New Zealand. **Broun, T.** Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (615).

*Velleius dilatatus* F., Symbiose. **Scriba, E.** Insektenbörse, Leipzig, **20**, 1903, (212).

#### TRICHOPTERYGIDAE.

**Sahlberg, J.** Demonstration einer Sammlung von Ingenieur Isaac Ericson in Mölndal angefertigter Photographien sehr kleiner Coleopteren. Helsingfors, Comptes rendus du Congrès des Naturalistes et Médecins du Nord tenu à Helsingfors du 7 au 12 juillet 1902, **1903**, VI Section, (18-19).

**Jensen-Haarup, A. C.** The smallest beetles. (Danish) Bergen, Naturen, **27**, 1903, (49-53, with fig.).

#### CORYLOPHIDAE.

*Corylophodes marginicollis* Lee, early stages. **Morrill, A. W.** Philadelphia, Pa., Ent. News Acad. Nat. Sci., **4**, 1903, (135-138, with pl.).

#### SCAPHIDIIDAE.

*Scaphisoma* nn. spp. Australia. **Blackburn, T.** Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (98-99).

*Sciatrophes* n. gen., *S. latens* n. sp. Australia. **Blackburn, T.** *l.c.* (100).

#### HISTERIDAE.

##### GENERAL.

**Lewis, G.** On new species of *Histeridae* and notices of others. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (417-429).

##### SPECIAL.

*Acritus nigricornis* E. H. **Gerhardt, J.** D. ent. Zs., Berlin, **1903**, (239-240).

*Althanus* n. gen., *A. teretrioides* n. sp. **Lewis, G.** Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (420-421).

*Carcinops*, synoptische Tabelle der Arten. **Osiki, E.** Állatt. Közlem., Budapest, **2**, 1903, (127).

*Chlamydopsis* Westwood, type *C. striatella*. **Lewis, G.** Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (428).

*Dendrophilus*, synoptische Tabelle der Arten. **Osiki, E.** Állatt. Közlem., Budapest, **2**, 1903, (126-127).

*Eblisia* nn. spp. New Guinea. Samatra. **Lewis, G.** Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (422-423).

*Epieus*, synoptische Tabelle der Arten. **Osiki, E.** Állatt. Közlem., Budapest, **2**, 1903, (126).

*Eulidium* n. gen., *E. pacale* n. sp. **Lewis, G.** Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (419).

*Hetaerius ferrugineus*, Beschreibung. **Osiki, E.** Állatt. Közlem., Budapest, **2**, 1903, (127-128).

—— *tristriatus*. **Brues, C. T.** Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (147-149, with fig. in text).

*Hister*, synoptische Tabelle der Arten. **Osiki, E.** Állatt. Közlem., Budapest, **2**, 1903, (119-126).

—— nn. spp. **Lewis, G.** Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (423-425).

—— *silantjevi* n. sp. Russie méridionale. **Širajev, N.** Rev. Russ. Ent., Jaroslavl, **3**, 1903, (16).

*Holopoka plana*, Beschreibung. **Osiki, E.** Állatt. Közlem., Budapest, **2**, 1903, (117).

*Hypocaeus* nn. spp. Australia. **Blackburn, T.** Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (108).

*Niponius canalicollis* Lewis, United Provinces and N. W. Himalayas, predaceous upon *Tomicus* sp. *Polygraphus major* and *P. minor*; description, life

history, relations to the forest. **Stebbing**, E. P. Departmental Notes on Insects that affect Forestry. No. 2. Calcutta, 1903, (248, pl. XIII, fig. 6).

*Notodoma orientale* n. sp. Birma. **Lewis**, G. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (425-426).

*Notolister sanguinosus* n. sp. Madagascar. **Fairmaire**, L. Naturaliste, Paris, (ser. 2), **23**, 1903, (9).

*Orectoscelis* n. gen., *O. humeralis* n. sp. Queensland. **Lewis**, G. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (426-427).

*Orphinium* n. gen. **Lewis**, G. *l.c.* (419).

*Paromalus*, synoptische Tabelle der Arten. **Osiki**, E. Allatt. Közlem., Budapest, **2**, 1903, (127).

——— nn. spp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (103).

*Petalosoma* n. gen. **Lewis**, G. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (418-419).

*Platysoma*, synoptische Tabelle der Arten. **Osiki**, E. Allatt. Közlem., Budapest, **2**, 1903, (118-119).

*Saprinus* nn. spp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (106-107).

——— *pygidialis* n. sp. **Lewis**, G. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (428-429).

*Satrapes sartorii*, Beschreibung. **Osiki**, E. Allatt. Közlem., Budapest, **2**, 1903, (128).

*Teretriosoma* nn. spp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., **27**, 1902, (110-111).

*Teretrius doddi* n. sp. Australia. **Blackburn**, T. *l.c.* (109).

*Tribalus*, synoptische Tabelle der Arten. **Osiki**, E. Allatt. Közlem., Budapest, **2**, 1903, (126).

## PHALACRIDAE.

*Litocerus maritimus* n. sp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (111).

## NITIDULIDAE.

*Aethina* nn. spp. Inde septentrionale. **Grouvelle**, A. Paris, Ann. soc. ent., **72**, 1903, (115-116).

*Carpophilus melanopterus*, parasitism, color. **Muttfeldt**, M. E. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (293-295).

——— *oblongopunctatus* n. sp. Inde septentrionale. **Grouvelle**, A. Paris, Ann. soc. ent., **82**, 1903, (108).

——— *vitraci* n. sp. Guadeloupe. **Grouvelle**, A. *l.c.* **71**, (2<sup>e</sup> semest.), 1902, [1903], (756-769).

*Cryptarcha* nn. spp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (116-117).

——— *lesnei* n. sp. Inde septentrionale. **Grouvelle**, A. Paris, Ann. soc. ent., **72**, 1902, (118).

*Epuraea* nn. spp. Inde septentrionale. **Grouvelle**, A. *l.c.* (109-111).

*Europe* nn. spp. Guadeloupe. **Grouvelle**, A. *l.c.* **71**, (2<sup>e</sup> semest.), 1902, [1903], (756-769).

——— nn. spp. Inde septentrionale. **Grouvelle**, A. *l.c.* **72**, 1902, (123-124).

*Haptoneura* nn. spp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (112).

*Heterelus kraatzii* n. sp. Inde septentrionale. **Grouvelle**, A. Paris, Ann. soc. ent., **72**, 1903, (108).

*Macrostola straminea* var. *vitraci* n. var. Guadeloupe. **Grouvelle**, A. *l.c.* **71**, (2<sup>e</sup> semest.), 1902, [1903], (756-759).

*Meligethes anatolicus* n. sp. Konia. **Schilsky**, J. Küster, die Käfer Europas, **40**, (94).

——— (*Odontogethes*) *castanescens* n. sp. Inde septentrionale. **Grouvelle**, A. Paris, Ann. soc. ent., **72**, 1903, (114).

——— *circularis* n. sp. Siberia. **Sahlberg**, J. Öfvers. F. Vet. Soc., Helsingfors, **45**, [No. 10], 1902-1903, (18).

——— *rubricollis* n. sp. Inde. **Grouvelle**, A. Paris, Ann. soc. ent., **72**, 1903, (125).

*Omosiphora sibirica* n. sp. **Sahlberg**, J. Öfvers. F. Vet. Soc., Helsingfors, **45**, [No. 10], 1902-1903, (17).

*Omosita co'on*, Larve und Puppe. **Reichelbaum**, F. All. Zs. Ent., Neudamm, **8**, 1903, (81-87).

———— *discoidea* Er., new for Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (261-309).

———— *ornata* n. sp. Inde septentrionale. **Grouvelle**, A. Paris, Ann. soc. ent., **72**, 1903, (12).

*Pallodes* nn. spp. Inde septentrionale. **Grouvelle**, A. l.c. (117).

*Pocadius harmanti* n. sp. Inde septentrionale. **Grouvelle**, A. l.c. (114).

*Pseudocamptodes blackburni* n. sp. **Grouvelle**, A. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1902, (184).

———— *montanus* n. sp. Inde. **Grouvelle**, A. Paris, Ann. Soc. ent., **72**, 1903, (126).

*Soronia* nn. spp. Inde septentrionale. **Grouvelle**, A. l.c. (113).

———— *elongata* n. sp. **Cameron**, M. Ent. Mag., London, **39**, 1903, (97-98).

#### TROGOSITIDAE.

*Thymalus marginicollis*, metamorphosis. **Breed**, R. S. Cambridge, Mass., Bull. Mus. Comp. Zool. Harvard Coll., **40**, 1903, (317-332, with pl.); (Cambridge, Mass., Cont. Zool. Lab. Mus. Comp. Zool. Harvard Coll., No. 145). Separate. 24.5 cm.

#### COLYDIIDAE.

##### GENERAL.

**Wasmann**, E. Gattungstabelle der *Cossyphodidae*. Wien, Ann. NatHist. Hofmus., **16**, 1901, (95-96).

##### SPECIAL.

*Aulabus blackburni* n. sp. **Grouvelle**, A. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1902, (184).

*Bothrideres picipes* n. sp. New Zealand. **Brown**, T. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (618).

*Catadaemus multimaculatus* n. sp. Guadeloupe. **Grouvelle**, A. Paris, Ann. Soc. ent., **71**, (2<sup>e</sup> semest.), 1902, [1903], (756-769).

*Cerylon alienigenum* n. sp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (91-182).

———— *hirtum* n. sp. **Grouvelle**, A. Bruxelles, Ann. Soc. Ent. Belgique, **45**, 1902, (186).

———— *humidus* n. sp. Inde septentrionale. **Grouvelle**, A. Paris, Ann. soc. ent., **72**, 1903, (121-124).

*Colyglodes bostrychoides* n. sp. Guadeloupe. **Grouvelle**, A. l.c. **71**, (2<sup>e</sup> semest.), 1902, [1903], (756-769).

*Cossyphodites* n. gen. for *Cossyphodites roodroofoi* (Pér.) Brauna. **Brauna**, H. Wien, Ann. NatHist. Hofmus., **16**, 1901, (91-94).

*Deretaphrus* nn. spp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (122-128).

*Labromimus harmandi* n. sp. Inde septentrionale. **Grouvelle**, A. Paris, Ann. soc. ent., **72**, 1903, (120).

*Lemnis lherminieri* n. sp. Guadeloupe. **Grouvelle**, A. l.c. **71**, (2<sup>e</sup> semest.), 1902, [1903], (756-769).

*Metopistes indicus* n. sp. l'Inde. **Grouvelle**, A. l.c. **72**, 1903, (126).

*Microponus montanus* n. sp. Inde septentrionale. **Grouvelle**, A. l.c. (121).

*Neotrichus guadalupensis* n. sp. Guadeloupe. **Grouvelle**, A. l.c. **71**, (2<sup>e</sup> semest.), 1902, [1903], (756-769).

*Philothermus guadalupensis* n. sp. Guadeloupe. **Grouvelle**, A. l.c. (756-769).

*Phormesa carpentaria* n. sp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (118).

*Pseuleba* n. gen., *P. novici* n. sp. Australia. **Blackburn**, T. l.c. (119-120).

*Pubala* n. gen., *P. squamifera* n. sp. **Grouvelle**, A. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1902, (184-185).

*Pycnomerus* nn. spp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (131-132).

———— *niliventris* n. sp. New Zealand. **Brown**, T. Ann. Mag. Nat.

Hist., London, (Ser. 7), 11, 1903, (617-618).

*Tadima lateralis* n. sp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., 27, 1903, (118).

*Tarphiosoma boutieri* n. sp. Inde septentrionale. **Grouvelle**, A. Paris, Ann. soc. ent., 72, 1903, (119).

*Xylobaenus indicus* n. sp. Inde septentrionale. **Grouvelle**, A. l.c. (119).

## CUCUJIDAE.

*Cathartus* (?) *cairnensis* n. sp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., 27, 1903, (91-182).

*Crypta* nn. spp. **Fairmaire**, L. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (181-259).

*Cryptamorphia peregrina* n. sp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., 27, 1903, (153).

*Cucujus* sp. N. W. Himalayas, predaceous upon *Tomicus* sp. *Polygraphus major* and *P. minor*, *Pityogenes confusae*, *Scolytus major* and *S. minor*; description, life history, relations to the Forest. **Stebbing**, E. P. Departmental Notes on Insects that affect Forestry. No. 2, Calcutta, 1903, (249, pl. xii, fig. 7). 25 cm.

*Laemophloeus* nn. spp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., 27, 1903, (140-146, 182).

— nn. spp. **Grouvelle**, A. Bruxelles, Ann. Soc. ent. Belgique, 45, 1902, (186-189).

— *dufani* n. sp. Guadeloupe. **Grouvelle**, A. Paris, Ann. soc. ent., 71, (2<sup>e</sup> semest.), 1902, [1903], (756-769).

— *harmandi* n. sp. Inde septentrionale. **Grouvelle**, A. l.c. 72, 1903, (122).

*Lathropus brightensis* n. sp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., 27, 1903, (147).

— *coslatus* n. sp. Guadeloupe. **Grouvelle**, A. Paris, Ann. soc. ent., 71, (2<sup>e</sup> semest.), 1902, [1903], (756-769).

*Myrabolia* nn. spp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., 27, 1903, (148-149).

*Platamias dufani* n. sp. Guadeloupe. **Grouvelle**, A. Paris, Ann. soc. ent., 71, (2<sup>e</sup> semest.), 1902, [1903], (756-769).

*Platycotylus coloratus* n. sp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., 27, 1903, (147).

*Prostomis gladiator* n. sp. Australia. **Blackburn**, T. l.c. (135).

*Psammococcus* nn. spp. Australia. **Blackburn**, T. l.c. (154-155).

*Silvanus aridulus* n. sp. Australia. **Blackburn**, T. l.c. (151).

*Telephanus guadalupensis* n. sp. Guadeloupe. **Grouvelle**, A. Paris, Ann. soc. ent., 71, (2<sup>e</sup> semest.), 1902, [1903], (756-769).

## CRYPTOPHAGIDAE.

*Cryptophagus* nn. spp. **Sahlberg**, J. Öfvers. F. Vet. Soc., Helsingfors, 45, [No. 10], 1902-1903, (15-16).

— *nigro-apicalis* n. sp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., 27, 1903, (156).

*Hapalips guadalupensis* n. sp. Guadeloupe. **Grouvelle**, A. Paris, Ann. soc. ent., 71, (2<sup>e</sup> semest.), 1902, [1903], (756-769).

*Loberus ritraci* n. sp. Guadeloupe. **Grouvelle**, A. l.c. (756-769).

*Pharazonota indica* n. sp. Inde. **Grouvelle**, A. l.c. 72, 1903, (127).

*Telmatophilus sublaevis* n. sp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., 27, 1903, (158).

*Tomarops* n. gen., *T. punctatus* n. sp. Inde méridionale. **Grouvelle**, A. Paris, Ann. soc. ent., (2<sup>e</sup> semest.), 1903, (343).

## THORICTIDAE.

*Thorictus foreli*, Symbiose. **Kolbe**, H. J. Berlin, SitzBer. Ges. natf. Freunde, 1903, (237-253).

— *kaznakovi* n. sp. Ost-Buchara. **Schmidt**, R. H. St. Petersburg, Ann. Mus. zool. Ac. Sc., 8, 1903, (389-391).

*Platynus* nn. spp. N. Carolina. **Beutenmüller**, W. New York, N.Y., Bull. Amer. Mus. Nat. Hist., **19**, 1903, (516-517).

— nn. spp. **Sharp**, D. Fauna Hawaiiensis, III, 1903, (228-229).

— *marginellus* Erichs. = *Anchomenus nigro-aeneus* Newm.; *P. queenslandicus* n. sp. **Sloane**, T. G. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, **28**, 1903, (632-633).

*Platysma*, etude sur divers espèces des Alpes occidentales. **Sainte-Claire-Deville**, J. Paris, Ann. soc. ent., **71**, (2<sup>e</sup> semest.), 1902, (588-619).

*Platysma* (Bon.) Tsch., ueber den Gattungsnamen. **Čičerin**, T. Rev. Russ. Ent., Jaroslavl, **3**, 1903, (218).

— (Bon.) Tsch. nn. spp. Thibet. **Čičerin**, T. l.c. (223).

— *astutum* n. sp. Caucasia. **Čičerin**, T. l.c. (107-108).

— *jazartis* n. sp. Turkestan. **Čičerin**, T. Rev. Russ. Ent., Jaroslavl, **3**, 1903, (220-227).

— *satunini* n. sp. Transcaucasia. **Čičerin**, T. l.c. (24-25).

*Pogonoglossus* nn. spp. Sumatra. **Bouchard**, J. Paris, Ann. soc. ent., **72**, 1903, (180).

*Pogonoidius* n. subgen. **Carret**, A. Echange, Lyon, **19**, 1903, (133).

*Pogonus* nn. spp., n. var. **Carret**, A. l.c. (135-137).

*Prodisenochus* n. gen. for *Dissenochus terebratus* Blackb. **Sharp**, D. Fauna Hawaiiensis, III, 1903, (210).

*Pseudobroschus* n. gen., *P. lentus* n. sp. **Sharp**, D. l.c. (pl. vi).

*Pseudoceneus iridipennis* Casteln., notes. **Sloane**, T. G. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, **28**, 1903, (623).

*Pterostichus* nn. spp. New Zealand. **Brown**, T. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (604-607).

— nn. varr. **Pic**, M. Echange, Lyon, **19**, 1903, (153-155).

*Pyrrotachys constricticeps* Sl. (emend. = *P. constrictipes*, Sl.) notes. **Sloane**, T. G. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, **28**, 1903, (583).

*Rhaebolestes* n. gen., *R. walkeri* n. sp. **Sloane**, T. G. l.c. (589).

*Sarticus sulcatus* MacL. = *Coronacanthus sulcatus*, MacL. = *S. quadrisulcatus* Chaud., notes; *S. blackburni* Sl., *S. cyanescinctus* Chaud. = *Feronia aureomarginata* Casteln. = *F. saphyreomarginata* Casteln., *S. obesulus* Chaud., *S. esmeraldipennis* Casteln., *S. habitans* Sl., *S. mac'eayi* Sl., notes; *Sarticus* nn. spp. **Sloane**, T. G. l.c. (613-620).

*Scopodes* nn. spp. **Sloane**, T. G. l.c. (639-640).

— *viridis* n. sp. New Zealand. **Brown**, T. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (612).

*Stenotelus* n. gen., *S. opacus* n. sp. Malay Archipelago. **Bouchard**, J. Paris, Ann. Soc. ent., **72**, 1903, (174-175).

*Strictoteflus* n. subgen. (*Teflus*.) **Kolbe**, H. J. Berlin, SitzBer. Ges. natf. Freunde, **1903**, (225-237).

*Tachys amplipennis* MacL., *T. sexstriatus* MacL., notes. *Tachys* nn. spp. **Sloane**, T. G. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, **28**, 1903, (576-641).

*Tarastethus* nn. spp. New Zealand. **Brown**, T. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (457-458).

*Teflus* nn. spp. **Kolbe**, H. J. Berlin, SitzBer. Ges. natf. Freunde, **1903**, (225-237).

*Thriscothorax* n. gen., *T. filices*, *T. gracilis*, *T. palustris*, *T. modestus*, *T. subconstrictus*, *T. molokaiac*, *T. perstriatus*, *T. mundanus*, *T. constrictus*, *T. insolitus*, *T. discedens*, *T. chalcosus*, *T. apicalis*, *T. perkinsi*, *T. variipes*, *T. ducalis*, *T. laticollis*, *T. bradyderus*, *T. platyminus*, *T. argutor* nn. spp. **Sharp**, D. Fauna Hawaiiensis III, 1903, (257-268).

*Trechus* (*Anophthalmus*) *calli* n. sp. Alpes-Maritimes. **Sainte-Claire-Deville**, J. Ann. soc. entol., Paris, **71**, 1902, [1903], (695-709).

*Trichosternus* nn. spp. New Zealand. **Brown**, T. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (602-601).

## HALIPLIDAE.

## GENERAL.

**Semenov**, A. P. Les rapports naturels des *Haliplidae*. (Russ.) Rev. Russ. Ent., Jaroslavl, 3, 1903, (187-190).

## SPECIAL.

*Haliplus alluandi* n. sp. Madagascar. **Régimbart**, M. Paris, Ann. soc. ent., 72, 1903, (1).

## DYTISCIDAE.

*Acilius canaliculatus*, observations. **Picard**, F. Feuille jeunes natural., Paris, (sér. 4), 33, 1903, (64).

*Bidessus* nn. spp. Madagascar. **Régimbart**, M. Paris, Ann. soc. ent., 72, 1903, (8-9).

——— nn. spp. Inde méridionale. **Régimbart**, M. l.c. (2° semest.), 1903, (331-332).

*Canthyrus flavosignatus* n. sp. Madagascar. **Régimbart**, M. l.c. 1903, (13).

*Clypeodytes sordidipennis* n. sp. Madagascar. **Régimbart**, M. l.c. (6).

*Copelatus unguicularis* n. nom. and n. sp. Madagascar. **Régimbart**, M. l.c. (17, 19)

*Perophyrus* nn. spp. Madagascar. **Régimbart**, M. l.c. (3-5).

*Hydrocratus* nn. spp. Madagascar. **Régimbart**, M. l.c. (11-12).

*Ptychoporus nilghiricus* n. sp. Inde méridionale. **Régimbart**, M. l.c. (2° semest.), 1903, (331).

*Hyphydrus minutissimus* n. sp. Madagascar. **Régimbart**, M. l.c. 1903, (5).

*Laccophilus* nn. spp. Madagascar. **Régimbart**, M. l.c. (14-15).

*Neptosternus* nn. spp. Madagascar. **Régimbart**, M. l.c. (15-16).

*Pachymetis* n. gen., *P. ventricosus* n. sp. Madagascar. **Régimbart**, M. l.c. (7-8).

## GYRINIDAE.

*Aulonogyrus cristatus* n. sp. Madagascar. **Régimbart**, M. Paris, Ann. soc. ent., 72, 1903, (21).

*Orecozyrus purpureus* var. *meridionalis* n. var. and *O. attenuatus* n. sp. Madagascar. **Régimbart**, M. l.c. 23-24).

## HYDROPHILIDAE.

## GENERAL.

**Régimbart**, M. Contribution à la faune Indo-Chinoise (19° Mém.) : *Hydrophilidae*. Paris, Ann. soc. ent., 72, 1903, (52-64).

**Sainte Claire Deville**, J. Remarques sur les *Hydrophilidae* de la faune française. Échange, Lyon, 17, 1902, (75-78, 83-85); 19, 1903, (103-104, 111-112).

## SPECIAL.

*Agraphydrus* n. gen., *A. punctatellus* n. sp. Madagascar. **Régimbart**, M. Paris, Ann. soc. ent., 72, 1903, (33-34).

*Amphiops* nn. spp. Madagascar. **Régimbart**, M. l.c. (43-44).

——— nn. spp. Indo-Chine. **Régimbart**, M. l.c. (61-62).

——— *lateritus* n. sp. **Fairmaire**, L. l.c. (2° semest.), 1903, (185).

*Berosus* nn. spp., *B. villosus* var. *dilutus* n. var. Madagascar. **Régimbart**, M. l.c. 1903, (37-39).

——— *nigropictus* n. sp. Indo-Chine. **Régimbart**, M. l.c. (60).

*Cercyon* nn. spp. Inde méridionale. **Régimbart**, M. l.c. (2° semest.), 1903, (337-338).

——— nn. spp. Madagascar. **Bedel**, in litt. **Régimbart**, M. l.c. 1903, (47-50).

*Coelostoma aeneolum* n. sp. Inde méridionale. **Régimbart**, M. l.c. (2° semest.), 1903, (237).

——— *phalacroides* n. sp. Madagascar. **Régimbart**, M. l.c. 1903, (44).

*Cycalonotus muelleri*† n. sp. Elbe. **Münster**, F. Berlin, Jahrb. geol. Landesanst., 21, 1901, Abh. augs. St. Pers., (31-38).

*Cylomissus* n. gen., *C. glabratus* n. sp. New Zealand. **Brown**, T. Ann. Mag. Nat. Hist., London (Ser. 7) 41 1903, (613).



*Daetylosternum pyguraeum* n. sp. Madagascar. Régimbart, M. Paris, Ann. soc. ent., 72, 1903, (45).

*Epimetopus maindrom* n. sp. Inde méridionale. Régimbart, M. l.c. (2<sup>e</sup> semest.), 1903, (338).

*Globalia subopaca* n. sp. Madagascar. Régimbart, M. l.c. 1903, (41).

*Helochares* nn. spp. Indo-Chine. Régimbart, M. l.c. (53-54).

——— varr., nn. varr. et nn. spp. Madagascar. Régimbart, M. l.c. (25-28).

*Helophorus* nn. spp. Ganglbauer, L. Wien, Verh. ZoolBot. Ges., 51, 1901, (312-332).

*Hydraena* nn. spp. Ganglbauer, L. l.c. (312-332).

——— *decolor* n. sp. Ste. Claire-Deville, J. Echange, Lyon, 19, 1903, (111-112).

——— *marginicollis* n. sp. Madagascar. Régimbart, M. Paris, Ann. soc. ent., 72, 1903, (51).

*Hydrobius atriceps* n. sp. Madagascar. Régimbart, M. l.c. (1-51).

——— *tesselatus* in Pennsylvania. Bradley, J. C. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (23).

*Hydrochus annamita* n. sp. Indo-Chine. Régimbart, M. Paris, Ann. soc. ent., 72, 1903, (64).

——— *tenuis* n. sp. Fairmaire, L. l.c. (2<sup>e</sup> semest.), 1903, (185).

*Hydrophilus cambodiensis* n. sp. Indo-Chine. Régimbart, M. l.c. 1903, (53).

——— *cultrifer* n. sp. Madagascar. Régimbart, M. l.c. (25).

——— *piceus*, note. Foujade, G. A. Paris, Bul. soc. ent., 1902, (238).

*Hydroporus bilineatus* Sturm., an addition to the British list. Chitty, A. J. Ent. Mag., London, 39, 1903, (43).

*Laccobius* nn. spp. Madagascar. Régimbart, M. Paris, Ann. soc. ent., 72, 1903, (34-35).

——— nn. spp. Indo-Chine. Régimbart, M. l.c. (58-59).

——— *discicollis* n. sp. Inde méridionale. Régimbart, M. l.c. (2<sup>e</sup> semest.), 1903, (336).

*Limnobius rufipennis* n. sp. Inde méridionale. Régimbart, M. l.c. (336).

*Ochthebius* nn. spp. Ganglbauer, L. Wien, Verh. ZoolBot. Ges., 51, 1901, (312-332).

——— (*Cheiloctebius*) nn. spp. Sahlberg, J. Ofvers. F. Vet. Soc., Helsingfors, 45, [No. 10], 1902-1903, (5-6).

——— *alluaudi* n. sp. Madagascar. Régimbart, M. Paris, Ann. soc. ent., 72, 1903, (50).

*Paracymus* nn. spp. Madagascar. Régimbart, M. Paris, Ann. soc. ent., 72, 1903, (32-33).

*Philydrus* nn. spp. Madagascar. Régimbart, M. l.c. (28-32).

——— nn. spp. Indo-Chine. Régimbart, M. l.c. (55-58).

——— nn. spp. Inde méridionale. Régimbart, M. l.c. (2<sup>e</sup> semest.), 1903, (335).

——— *hamifer* n. sp. Ganglbauer, L. Wien, Verh. ZoolBot. Ges., 51, 1901, (312-332).

*Rygmodes nigripennis* n. sp. New Zealand. Broun, T. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (612-613).

*Spercheus hovanus* n. sp. Fairmaire, L. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (186).

*Zeadolopus* n. gen. *Z. spinipes* n. sp. New Zealand. Broun, T. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (614).

## SILPHIDAE.

### GENERAL.

Bordas, L. L'appareil digestif des *Silphidae*. Paris, C. R. Acad. sci., 137, 1903, (344-346).

### SPECIAL.

*Aclypea sculpturata* n. sp. l'Inde. Grouvelle, A. Paris, Ann. soc. ent., 72, 1903, (125).

*Catops* nn. spp. Portevin, G. l.c. (166-167).

*Choleva doderoi* n. sp. **Breit**, J. Soc. Entomol., Zürich, 17, 1903, (169).

———— *macleayi* n. sp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., 27, 1903, (94).

*Cholevomorpha* nn. spp. Australia. **Blackburn**, T. l.c. (95-96).

*Clambus tropicus* n. sp. Australia. **Blackburn**, T. l.c. (97).

*Dissochaetus* nn. spp. S. America. **Portevin**, G. Paris, Ann. soc. ent., 72, 1903, (159-162).

*Estadia* n. gen., *E. capito* n. sp. Madagascar. **Fairmaire**, L. l.c. (2<sup>e</sup> semest.), 1903, (183-184).

*Eucatops* n. gen., *E. curtipes*, *E. ater*, *E. grouvellei*, *E. rufescens*, *E. oblongus* nn. spp. S. America. **Portevin**, G. l.c. 1903, (162-164).

*Hydnobius tibialis* n. sp. **Sahlberg**, J. Öfvers. F. Vet. Soc., Helsingfors, 45, [No. 10], 1902-1903, (9).

*Leonhardia reitteri* n. sp. Bosnien. **Breit**, J. Soc. Entomol., Zürich, 17, 1902, (89).

*Liodes bruneicollis* Mann. in litt., 3 nn. spp. **Sahlberg**, J. Öfvers. F. Vet. Soc., Helsingfors, 45, [No. 10], 1902-1903, (10-14).

*Nargus* nn. spp. **Portevin**, G. Paris, Ann. soc. ent., 72, 1903, (157).

*Spaliothornum* n. gen., *S. haemorrhoidale* n. sp. Bolivia. **Portevin**, G. l.c. (165).

## SCYDMAENIDAE.

*Cyrtoscydmus apulicus* n. sp. **Pic**, M. Exchange, Lyon, 17, 1902, (23).

## PSELAPHIDAE.

### GENERAL.

**Raffray**, A. Psélaphides recueillis dans le sud de Madagascar par T. Ch. Alluaud. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (315-330, av. fig.).

### SPECIAL.

*Acylopselaphus* nn. spp. Madagascar. **Raffray**, A. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (327-329).

*Aloxomidus* n. gen. verwandt mit *Calarus* Raffr., *A. variolosus* n. sp. **Raffray**, A. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (34-35, Taf. I).

*Apoterus lucidus* n. sp. **Raffray**, A. l.c. (31-32).

*Articerus nitidicollis* n. sp. **Raffray**, A. l.c. (97, Taf. II).

*Batraxia* nn. spp. **Raffray**, A. l.c. (57-59).

*Batraxocenus* n. gen. verwandt mit *Batraxodes*. *B. iridescens*, *B. serraticornis*, *B. birónis*, *B. irregularis*, *B. incertus*, *B. chloroticus*, *B. trivialis*, *B. validicornis*, *B. mucronatus*, *B. armaticornis*, *B. cavernosus* nn. spp. **Raffray**, A. l.c. (48-56, Taf. I-II).

*Batraxodes* nn. spp. **Raffray**, A. l.c. (45-47, Taf. II).

*Batraxomina* n. gen., *B. strigicollis* n. sp. Madagascar. **Raffray**, A. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (316).

*Birónia* n. gen. verwandt mit *Claviger*. *B. cavernosa* n. sp. **Raffray**, A. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (99-100, Taf. II).

*Brachygluta trochalis* n. sp. Madagascar. **Raffray**, A. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (320).

*Bryazella* n. gen., *B. spectralis* n. sp. Madagascar. **Raffray**, A. l.c. (319).

*Bythinus cythereias* n. sp. **Pic**, M. Exchange, Lyon, 19, 1903, (161).

*Calarus* n. gen. verwandt mit *Amudrocerus* Raffr. *C. puncticeps*, *C. dubius*, *C. semipunctatus* nn. spp. **Raffray**, A. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (32-34).

*Comatopselaphus puncticollis* Raffr., Beschreibung. 3 nn. spp. **Raffray**, A. l.c. (59-61).

*Cratna variabilis* n. sp. **Raffray**, A. l.c. (56-57).

*Ctenisophus papuanus* n. sp. **Raffray**, A. l.c. (93-94).

*Cyathiger* nn. spp. **Raffray**, A. l.c. (89-92, Taf. II).

*Diarrogus* n. gen. verwandt mit *Trimiodytes* Raffr. *D. pubescens* n. sp. **Raffray**, A. l.c. (36-37, Taf. I).

*Elasmatus* n. gen., *E. lamellipes* n. sp. **Raffray**, A. l.c. (97-98, Taf. II).

*Epithematus* n. gen. verwandt mit *Pteroplectus* Raffr., *E. nitidus* n. sp. **Raffray**, A. l.c. (39-40, Taf. I).

*Euplectus* nn. spp. Madagascar. **Raffray**, A. Paris, Ann. soc. ent., **72**, (2<sup>e</sup> semest.), 1903, (315).

———— *anguinus* n. sp. **Raffray**, A. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., **1**, 1903, (37-38).

*Exedrus* n. gen. verwandt mit *Ozarthrius*. *E. caviceps* n. sp. **Raffray**, A. l.c. (47-48, Taf. II).

*Filiger batavianus* n. sp. **Raffray**, A. l.c. (92).

*Glapharsenus* n. gen. verwandt mit *Nedarasus* Raffr. *G. asperatus*, *G. punctatus*, *G. microphthalmus* var. *sublaevis*, *G. latus* nn. spp. **Raffray**, A. l.c. (86-89, Taf. I).

*Mechanicus papuanus* n. sp. **Raffray**, A. l.c. (31).

*Mesoplectus cribricollis* n. sp. **Raffray**, A. l.c. (44).

*Microplectus* nn. spp. **Raffray**, A. l.c. (40-44, Taf. II).

*Philopsis tuberculiceps* n. sp. **Raffray**, A. l.c. (35-36).

*Philonthus coracion* n. sp. **Peyerimhoff**, P. de France. Paris, Bull. soc. ent., **1902**, (246-247).

*Paelaphophus sulciceps* n. sp. **Raffray**, A. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., **1**, 1903, (92-93).

*Pyridicerus* nn. spp. **Raffray**, A. l.c. (29-30).

*Rabyzis* nn. spp. Madagascar. **Raffray**, A. Paris, Ann. soc. ent., **72**, (2<sup>e</sup> semest.), 1903, (317-318).

*Reichenbachia* nn. spp. **Raffray**, A. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., **1**, 1903, (61-75, 1 Taf.).

———— nn. spp. Madagascar. **Raffray**, A. Paris, Ann. soc. ent., **72**, (2<sup>e</sup> semest.), 1903, (321-325).

*Rytus* nn. spp. **Raffray**, A. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., **1**, 1903, (95-96).

*Stictus corrugatus* n. sp. **Raffray**, A. l.c. (144).

*Sumorfa* nn. spp. **Raffray**, A. l.c. (76-86, Taf. I).

*Syrphaphesina* n. gen., *S. pliciventris* n. sp. **Raffray**, A. l.c. (100-101, Taf. II).

*Taphrostethus longisina* n. sp. **Raffray**, A. l.c. (95).

*Thesioastes elegantulus* Raffr., faunistisch, 2 nn. spp. **Raffray**, A. l.c. (38-39).

*Tyromorphus cribricollis* n. sp. **Raffray**, A. l.c. (94).

*Zethopsus papuanus* n. sp. **Raffray**, A. l.c. (30-31).

## STAPHYLINIDAE.

*Aleochara gracilicornis* (nom. nud.) **Fauvel** MSS. in **Glosson**, A. T. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (4-8).

———— *opacicollis* n. sp. **Bernhauer**, M. Wien, Verh. ZoolBot. Ges., **52**, 1902, (695-705).

*Ancaeus försteri* n. sp. Ostindien. **Bernhauer**, M. Stettiner ent. Ztg., **64**, 1903, (36).

*Anthobium* nn. spp. **Bernhauer**, M. Wien, Verh. ZoolBot. Ges., **52**, 1902, (695-705).

———— *puleherrimum* n. sp. **Bernhauer**, M. l.c. **51**, 1901, (651-655).

*An'hophagus* nn. spp. **Luse**, G. l.c. (505-506).

*Arpedium* nn. spp. **Bernhauer**, M. l.c. (695-705).

*Atheta* (*Thiobaena*) *cephalotes* n. sp. l.c. **51**, 1901, (651-655).

———— *islandica* = *smolkai* Ryb. **Bernhauer**, M. l.c. (695-705).

*Bledius bosniacus* n. sp. **Bernhauer**, M. l.c. **52**, 1902, (695-705).

———— *fischeri* n. sp. Ostindien. **Bernhauer**, M. Stettiner ent. Ztg., **64**, 1903, (35).

*Dolotobius*, Revision der paläarktischen Arten, nn. spp. **Luse**, G. Wien, Verh. ZoolBot. Ges., **51**, 1901, (662-746).

———— *variegatus* n. sp. **Bernhauer**, M. l.c. **52**, 1902, (695-705).

*Borolinus* n. gen., *B. borneensis* n. sp. **Bernhauer**, M. D. ent. Zs., Berlin, **1903**, (133-131).

*Bryocharis*, Revision der paläarktischen Arten. **Luze**, G. Wien. Verh. ZoolBot. Ges., **51**, 1901, (662-746).

*Bryoporus*, Revision der paläarktischen Arten, nn. spp. **Luze**, G. l.c. (662-746).

*Callopaenius* n. gen. = *Eupsenius* **Wasmann**, E. D. ent. Zs., Berlin, **1903**, (236).

*Conosoma pictum* n. sp. Ostindien. **Fauvel** in **Bernhauer**, M. Stettiner ent. Ztg., **64**, 1903, (26).

*Cryptobium fruhsorferi* n. sp. Ostindien. **Bernhauer**, M. l.c. (30).

*Ecitoxenia brevipennis* n. sp. Texas. **Brues**, C. T. "Contributions from the Zoological Laboratory of the University of Texas. No. 32." Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (184-188, with 1 pl.).

*Heterosoma* n. gen. (~ *Achenium*), II. *lohrii* n. sp. Ostindien. **Bernhauer**, M. Stettiner ent. Ztg., **74**, 1903, (33).

*Homalota albigrada* nom. nud. **Fauvel** MSS. in **Slosson**, A. T. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (4-8).

*Homalium rufulare*, mœurs et métamorphoses. **Xambou**. Naturaliste, Paris, (sér. 2), **25**, 1903, (55).

*Hygrogeus*. **Luze**, G. Wien. Verh. ZoolBot. Ges., **52**, 1902, (505-530).

*Ilyobates*. **Bernhauer**, M. l.c. (695-705).

*Lamprinodes* n. gen., I. *hammarstroemi* n. sp. **Luze**, G. l.c. **51**, 1901, (181-182).

*Lathrobium rodii* n. sp. **Bernhauer**, M. l.c. **52**, 1902, (695-705).

———— *sumatrense* n. sp. **Bernhauer**, M. Stettiner ent. Ztg., **64**, 1903, (31).

*Leptochirus* nn. spp. **Bernhauer**, M. D. ent. Zs., Berlin, **1903**, (126-132).

*Medon granulicollis* n. sp. Ostindien. **Bernhauer**, M. Stettiner ent. Ztg., **64**, 1903, (32).

*Mycetoporus* nn. spp. **Luze**, G. Wien. Verh. ZoolBot. Ges., **51**, 1901, (662-746).

———— *zeithammeri* n. sp. **Bernhauer**, M. l.c. **52**, 1902, (695-705).

*Myloena kraatzi* Sharp., new to Ireland. **Chaster**, G. W. Irish Nat., Dublin, **12**, 1903, (167).

*Myrmedonia* nn. spp. Ostindien. **Bernhauer**, M. Stettiner ent. Ztg., **64**, 1903, (21-24).

*Omalium italicum* n. sp. **Bernhauer**, M. Wien. Verh. ZoolBot. Ges., **52**, 1902, (695-705).

*Oxytelus lucens* n. sp. Ostindien. **Fauvel** in **Bernhauer**, M. Stettiner ent. Ztg., **64**, 1903, (34).

*Philonthus* nn. spp. Ostindien. **Fauvel** and **Bernhauer**, M. l.c. (26-29).

———— *glenelegi* n. sp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (91-182).

———— *ustulatus* (= *ornatipennis* Reitt.), Synonymie. **Bernhauer**, M. Wien. Verh. ZoolBot. Ges., **52**, 1902, (699).

*Phyllodrepa devillei* n. sp. **Bernhauer**, M. l.c. (695-705).

*Priochirus* nn. spp. **Bernhauer**, M. D. ent. Zs., Berlin, **1903**, (146-153).

*Quedius lederi* n. spp. **Reitter** in **Bernhauer**, M. Wien. Verh. ZoolBot. Ges., **52**, 1902, (695-705).

———— *nelsonensis* n. sp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (93).

———— *rubripennis* n. sp. **Bernhauer**, M. Wien. Verh. ZoolBot. Ges., **51**, 1901, (651-655).

*Sipalia (Geostiba) solarii* n. sp. **Bernhauer**, M. l.c. **52**, 1902, (695-705).

*Tachinus sahlbergi* (= *furcatus* **Luze** = *luzei* **Bernh.**), *T. bicuspidatus* (= *abscanditus* **Luze**). **Bernhauer**, M. l.c. (697).

*Tachyporus* n. spp. **Luze**, G. l.c. **51**, 1901, (146-185).

*Termitogaster texana* n. sp. Texas. **Brues**, C. T. "Contributions from the Zoological Laboratory of the University of Texas. No. 32." Philadelphia, Pa., Ent. News Acad. Nat. Sci., **13**, 1902, (184-188, with 1 pl.).

*Thinobius klimai* n. sp. **Bernhauer**, M. Wien. Verh. ZoolBot. Ges., **52**, 1902, (695-705).

*Thoracochirus* n. gen. (~ *Priochirus*), *T. foersteri* n. sp. **Bernhauer**, M. D. ent. Zs., Berlin, **1903**, (155-156).

*Trogophloeus* nn. spp. **Bernhauer, M.** Wien, Verh. ZoolBot. Ges., **51**, 1901, (651-655).

—— *bodemeyeri* n. sp. **Bernhauer, M. l.c.** **52**, 1902, (695-705).

—— (*Carpalimus*) *coreyreus* n. sp. **Sahlberg, J.** Öfvers. F. Vet. Soc., Helsingfors, **45**, [No. 10], 1902-1903, (8).

—— *maritimus* n. sp. New Zealand. **Brown, T.** Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (615).

*Velleius dilatatus* F., Symbiose. **Scriba, E.** Insektenbörse, Leipzig, **20**, 1903, (212).

### TRICHOPTERYGIDAE.

**Sahlberg, J.** Demonstration einer Sammlung von Ingenieur Isaac Ericson in Mölndal angefertigter Photographien sehr kleiner Coleopteren. Helsingfors, Comptes rendus du Congrès des Naturalistes et Médecins du Nord tenu à Helsingfors du 7 au 12 juillet 1902, **1903**, VI Section, (18-19).

**Jensen-Haarup, A. C.** The smallest beetles. (Danish) Bergen, Naturen, **27**, 1903, (49-53, with fig.).

### CORYLOPHIDAE.

*Corylophodes marginicollis* Lee, early stages. **Morrill, A. W.** Philadelphia, Pa., Ent. News Acad. Nat. Sci., **4**, 1903, (135-138, with pl.).

### SCAPHIDIIDAE.

*Scaphisoma* nn. spp. Australia. **Blackburn, T.** Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (98-99).

*Sciatiophes* n. gen., *S. latens* n. sp. Australia. **Blackburn, T. l.c.** (100).

### HISTERIDAE.

#### GENERAL.

**Lewis, G.** On new species of *Histeridae* and notices of others. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (417-429).

#### SPECIAL.

*Acritus nigricornis* E. H. **Gerhardt, J. D.** ent. Zs., Berlin, **1903**, (239-240).

*Althanus* n. gen., *A. teretrioides* n. sp. **Lewis, G.** Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (420-421).

*Carcinops*, synoptische Tabelle der Arten. **Osiki, E.** Állatt. Közlem., Budapest, **2**, 1903, (127).

*Chlamydopsis* Westwood, type *C. striatella*. **Lewis, G.** Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (428).

*Dendrophilus*, synoptische Tabelle der Arten. **Osiki, E.** Állatt. Közlem., Budapest, **2**, 1903, (126-127).

*Eblisia* nn. spp. New Guinea. Sumatra. **Lewis, G.** Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (422-423).

*Epieus*, synoptische Tabelle der Arten. **Osiki, E.** Állatt. Közlem., Budapest, **2**, 1903, (126).

*Eulidium* n. gen., *E. pacale* n. sp. **Lewis, G.** Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (419).

*Hetaerius ferrugineus*, Beschreibung. **Osiki, E.** Állatt. Közlem., Budapest, **2**, 1903, (127-128).

—— *tristriatus*. **Brues, C. T.** Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (147-149, with fig. in text).

*Hister*, synoptische Tabelle der Arten. **Osiki, E.** Állatt. Közlem., Budapest, **2**, 1903, (119-126).

—— nn. spp. **Lewis, G.** Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (423-425).

—— *sikantjeri* n. sp. Russie méridionale. **Štirajev, N.** Rev. Russ. Ent., Jaroslavl, **3**, 1903, (16).

*Holopolta plana*, Beschreibung. **Osiki, E.** Állatt. Közlem., Budapest, **2**, 1903, (117).

*Hypocaeus* nn. spp. Australia. **Blackburn, T.** Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (108).

*Niponius canalicollis* Lewis, United Provinces and N. W. Himalayas, predaceous upon *Tomicus* sp. *Polygraphus major* and *P. minor*; description, life

history, relations to the forest. **Stebbing**, E. P. Departmental Notes on Insects that affect Forestry. No. 2. Calcutta, 1903, (248, pl. XIII, fig. 6).

*Notodoma orientale* n. sp. Birma. **Lewis**, G. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (425-426).

*Notolister sanguinosus* n. sp. Madagascar. **Fairmaire**, L. Naturaliste, Paris, (ser. 2), 23, 1903, (9).

*Orectoscelis* n. gen., *O. humeralis* n. sp. Queensland. **Lewis**, G. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (426-427).

*Orphinium* n. gen. **Lewis**, G. l.c. (419).

*Paromalus*, synoptische Tabelle der Arten. **Osiki**, E. Allatt. Közlem., Budapest, 2, 1903, (127).

——— nn. spp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., 27, 1903, (103).

*Petalosoma* n. gen. **Lewis**, G. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (418-419).

*Platysoma*, synoptische Tabelle der Arten. **Osiki**, E. Allatt. Közlem., Budapest, 2, 1903, (118-119).

*Saprinus* nn. spp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., 27, 1903, (106-107).

——— *pygidialis* n. sp. **Lewis**, G. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (428-429).

*Satrapes sartorii*, Beschreibung. **Osiki**, E. Allatt. Közlem., Budapest, 2, 1903, (128).

*Teretriosoma* nn. spp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., 27, 1902, (110-111).

*Teretrius doddi* n. sp. Australia. **Blackburn**, T. l.c. (109).

*Tribalus*, synoptische Tabelle der Arten. **Osiki**, E. Allatt. Közlem., Budapest, 2, 1903, (126).

## PHALACRIDAE.

*Litocerus maritimus* n. sp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., 27, 1903, (111).

## NITIDULIDAE.

*Aethina* nn. spp. Inde septentrionale. **Grouvelle**, A. Paris, Ann. soc. ent., 72, 1903, (115-116).

*Carpophilus melanopterus*, parasitism, color. **Murtfeldt**, M. E. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (293-295).

——— *oblongopunctatus* n. sp. Inde septentrionale. **Grouvelle**, A. Paris, Ann. soc. ent., 82, 1903, (108).

——— *vitraci* n. sp. Guadeloupe. **Grouvelle**, A. l.c. 71, (2<sup>e</sup> semest.), 1902, [1903], (756-769).

*Cryptarcha* nn. spp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., 27, 1903, (116-117).

——— *lesnei* n. sp. Inde septentrionale. **Grouvelle**, A. Paris, Ann. soc. ent., 72, 1902, (118).

*Eburnea* nn. spp. Inde septentrionale. **Grouvelle**, A. l.c. (109-111).

*Europe* nn. spp. Guadeloupe. **Grouvelle**, A. l.c. 71, (2<sup>e</sup> semest.), 1902, [1903], (756-769).

——— nn. spp. Inde septentrionale. **Grouvelle**, A. l.c. 72, 1902, (123-124).

*Haptoneura* nn. spp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., 27, 1903, (112).

*Heterelus kraatzii* n. sp. Inde septentrionale. **Grouvelle**, A. Paris, Ann. soc. ent., 72, 1903, (108).

*Macrostola straminea* var. *vitraci* n. var. Guadeloupe. **Grouvelle**, A. l.c. 71, (2<sup>e</sup> semest.), 1902, [1903], (756-759).

*Meligethes anatolicus* n. sp. Konia. **Schilsky**, J. Küster, die Käfer Europas, 40, (94).

——— (*Odontogethes*) *castanescens* n. sp. Inde septentrionale. **Grouvelle**, A. Paris, Ann. soc. ent., 72, 1903, (114).

——— *circularis* n. sp. Siberia. **Sahlberg**, J. Öfvers. F. Vet. Soc., Helsingfors, 45, [No. 10], 1902-1903, (18).

——— *rubricollis* n. sp. Inde. **Grouvelle**, A. Paris, Ann. soc. ent., 72, 1903, (125).

*Omosiphora sibirica* n. sp. **Sahlberg**, J. Öfvers. F. Vet. Soc., Helsingfors, 45, [No. 10], 1902-1903, (17).

*Omosita co'on*, Larve und Puppe. **Eichelbaum**, F. All. Zs. Ent., Neudamm, **8**, 1903, (81-87).

——— *discoidea* Er., new for Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (261-309).

——— *ornata* n. sp. Inde septentrionale. **Grouvelle**, A. Paris, Ann. soc. ent., **72**, 1903, (12).

*Pallodes* nn. spp. Inde septentrionale. **Grouvelle**, A. l.c. (117).

*Pocadius harmanti* n. sp. Inde septentrionale. **Grouvelle**, A. l.c. (114).

*Pseudocamptodes blackburni* n. sp. **Grouvelle**, A. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1902, (184).

——— *montanus* n. sp. Inde. **Grouvelle**, A. Paris, Ann. Soc. ent., **72**, 1903, (126).

*Soronia* nn. spp. Inde septentrionale. **Grouvelle**, A. l.c. (113).

——— *elongata* n. sp. **Cameron**, M. Ent. Mag., London, **39**, 1903, (97-98).

## TROGOSITIDAE.

*Thymalus marginicollis*, metamorphosis. **Breed**, R. S. Cambridge, Mass., Bull. Mus. Comp. Zool. Harvard Coll., **40**, 1903, (317-332, with pl.); (Cambridge, Mass., Cont. Zool. Lab. Mus. Comp. Zool. Harvard Coll., No. 145). Separate. 24.5 cm.

## COLYDIIDAE.

### GENERAL.

**Wasmann**, E. Gattungstabelle der *Cossyphodidae*. Wien, Ann. NatHist. Hofmus., **16**, 1901, (95-96).

### SPECIAL.

*Allabus blackburni* n. sp. **Grouvelle**, A. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1902, (184).

*Bohrideres picipes* n. sp. New Zealand. **Brown**, T. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (618).

*Catolacmus multimaculatus* n. sp. Guadeloupe. **Grouvelle**, A. Paris, Ann. Soc. ent., **71**, (2<sup>e</sup> semest.), 1902, [1903], (756-769).

*Cerylon alienigenum* n. sp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (91-182).

——— *hirtum* n. sp. **Grouvelle**, A. Bruxelles, Ann. Soc. Ent. Belgique, **45**, 1902, (186).

——— *lunigerus* n. sp. Inde septentrionale. **Grouvelle**, A. Paris, Ann. soc. ent., **72**, 1903, (121-124).

*Colylodes bostrychoidea* n. sp. Guadeloupe. **Grouvelle**, A. l.c. **71**, (2<sup>e</sup> semest.), 1902, [1903], (756-769).

*Cossyphodites* n. gen. for *Cossyphodites roodroofoei* (Pér.) Brauns. **Brauns**, H. Wien, Ann. NatHist. Hofmus., **16**, 1901, (91-94).

*Deretaphrus* nn. spp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (122-128).

*Labromimus harmandi* n. sp. Inde septentrionale. **Grouvelle**, A. Paris, Ann. soc. ent., **72**, 1903, (120).

*Lennis therminieri* n. sp. Guadeloupe. **Grouvelle**, A. l.c. **71**, (2<sup>e</sup> semest.), 1902, [1903], (756-769).

*Mcopiastes indicus* n. sp. l'Inde. **Grouvelle**, A. l.c. **72**, 1903, (126).

*Microponus montanus* n. sp. Inde septentrionale. **Grouvelle**, A. l.c. (121).

*Neotrichus guadalupensis* n. sp. Guadeloupe. **Grouvelle**, A. l.c. **71**, (2<sup>e</sup> semest.), 1902, [1903], (756-769).

*Philothermus guadalupensis* n. sp. Guadeloupe. **Grouvelle**, A. l.c. (756-769).

*Phormesa carpentaria* n. sp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (118).

*Pseudeba* n. gen., *P. novici* n. sp. Australia. **Blackburn**, T. l.c. (119-120).

*Pubala* n. gen., *P. squamifera* n. sp. **Grouvelle**, A. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1902, (184-185).

*Pycnomerus* nn. spp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (131-132).

——— *nitiventris* n. sp. New Zealand. **Brown**, T. Ann. Mag. Nat.

Hist., London, (Ser. 7), 11, 1903, (617-618).

*Tadima lateralis* n. sp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., 27, 1903, (118).

*Tarphiosoma boutieri* n. sp. Inde septentrionale. **Grouvelle**, A. Paris, Ann. soc. ent., 72, 1903, (119).

*Xylobaenus indicus* n. sp. Inde septentrionale. **Grouvelle**, A. l.c. (119).

## CUCUJIDAE.

*Cathartus* (?) *cairnensis* n. sp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., 27, 1903, (91-182).

*Crypta* nn. spp. **Fairmaire**, L. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (181-259).

*Cryptamorphia peregrina* n. sp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., 27, 1903, (153).

*Cucujus* sp. N. W. Himalayas, predaceous upon *Tomicus* sp. *Polygraphus major* and *P. minor*, *Pityogenes confusus*, *Scolytus major* and *S. minor*; description, life history, relations to the Forest. **Stebbing**, E. P. Departmental Notes on Insects that affect Forestry. No. 2, Calcutta, 1903, (249, pl. xii, fig. 7). 25 cm.

*Laemophloeus* nn. spp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., 27, 1903, (140-146, 182).

— nn. spp. **Grouvelle**, A. Bruxelles, Ann. Soc. ent. Belgique, 45, 1902, (186-189).

— *dufani* n. sp. Guadeloupe. **Grouvelle**, A. Paris, Ann. soc. ent., 71, (2<sup>e</sup> semest.), 1902, [1903], (756-769).

— *harmandi* n. sp. Inde septentrionale. **Grouvelle**, A. l.c. 72, 1903, (122).

*Lathropus brightensis* n. sp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., 27, 1903, (147).

— *costatus* n. sp. Guadeloupe. **Grouvelle**, A. Paris, Ann. soc. ent., 71, (2<sup>e</sup> semest.), 1902, [1903], (756-769).

*Myrabolia* nn. spp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., 27, 1903, (148-149).

*Platamus dufani* n. sp. Guadeloupe. **Grouvelle**, A. Paris, Ann. soc. ent., 71, (2<sup>e</sup> semest.), 1902, [1903], (756-769).

*Platycotylus coloratus* n. sp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., 27, 1903, (147).

*Prostomis gladiator* n. sp. Australia. **Blackburn**, T. l.c. (135).

*Psammoeus* nn. spp. Australia. **Blackburn**, T. l.c. (154-155).

*Silvanus aridulus* n. sp. Australia. **Blackburn**, T. l.c. (151).

*Telephanus guadalupensis* n. sp. Guadeloupe. **Grouvelle**, A. Paris, Ann. soc. ent., 71, (2<sup>e</sup> semest.), 1902, [1903], (756-769).

## CRYPTOPHAGIDAE.

*Cryptophagus* nn. spp. **Sahlberg**, J. Ofvers. F. Vet. Soc., Helsingfors, 45, [No. 10], 1902-1903, (15-16).

— *nigro-apicalis* n. sp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., 27, 1903, (156).

*Hapalips guadalupensis* n. sp. Guadeloupe. **Grouvelle**, A. Paris, Ann. soc. ent., 71, (2<sup>e</sup> semest.), 1902, [1903], (756-769).

*Loberus ritraci* n. sp. Guadeloupe. **Grouvelle**, A. l.c. (756-769).

*Pharaxonota indica* n. sp. Inde. **Grouvelle**, A. l.c. 72, 1903, (127).

*Telmatophilus sublatus* n. sp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., 27, 1903, (158).

*Tomarops* n. gen., *T. punctatus* n. sp. Inde meridionale. **Grouvelle**, A. Paris, Ann. soc. ent., (2<sup>e</sup> semest.), 1903, (343).

## THORICTIDAE.

*Thorictus foreli*, Symbiose. **Kolbe**, H. J. Berlin, Sitzber. Ges. natf. Freunde, 1903, (237-253).

— *kaznakovi* n. sp. Ost-Buchara. **Schmidt**, R. H. St. Petersburg, Ann. Mus. zool. Ac. Sc., 8, 1903, (389-391).



*Thorictus ruzskii* n. sp. Transcaspia. **Semenov**, A. P. Rev. Russ. Ent., Jaroslavl, 3, 1903, (353-357).

Altan Lande im Winter 1901-02. **Ans d. Heimat**, Bremerhaven, 1901-02, 1903, (53-54).

**Weise**, J. Synonymische Bemerkungen [betr. *Coccinellidae*]. D. ent. Zs., Berlin, 1903, (424).

## EROTYLIDAE.

### GENERAL.

**Xambou**. Mœurs et métamorphoses des coléoptères appartenant au groupe des Erotylides. Naturaliste, Paris, (sér. 2), 25, 1903, (91-92, 407).

### SPECIAL.

*Helota pauli* n. sp. **Weise**, J. D. ent. Zs., Berlin, 1903, (171).

*Titubaea peyerimhoffi* n. var. (var. de 13 punctata Desh.?) **Pic**, M. Echange, Lyon, 17, 1902, (48).

## MYCETOPHAGIDAE.

*Berginus ritraci* n. sp. Guadeloupe. **Grouvelle**, A. Paris, Ann. soc. ent., 71, (2<sup>e</sup> semest.), 1902, (1903), (756-769).

*Diphyllus maindroni* n. sp. Inde méridionale. **Grouvelle**, A. l.c. 72, (2<sup>e</sup> semest.), 1903, (342).

——— *ornatellus* n. sp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., 27, 1903, (91-182).

*Diplocoelus opacior* n. sp. Australia. **Blackburn**, T. l.c. (158).

## COCCINELLIDAE.

### GENERAL.

**Bowditch**, F. C. Notes on Casey's revision of the American *Coccinellidae*. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (205-207).

**Burgess**, A. F. Economic notes on the family *Coccinellidae*. Washington, D.C., Bull. U.S. Dept. Agric., Div. Ent., No. 40, 1903, (25-32).

**Leng**, C. W. Notes on *Coccinellidae*. New York, N.Y., J. Ent. Soc., 11, 1903, (35-45, with pl.).

——— *Coccinellidae*, notes. l.c. (193-213, with 2 pls.).

**Leonhardt**, W. Ueber das massenhafte Auftreten von *Coccinelliden* im

### SPECIAL.

*Brachyacantha aperta* n. sp. **Weise**, J. D. ent. Zs., Berlin, 1903, (208).

*Chilocorus similis*, parasite of. **Marslatt**, C. L. Washington, D.C., Proc. Ent. Soc., 5, 1903, (138-139).

*Cleothera staudingeri* n. sp. **Weise**, J. Bruxelles, Ann. Soc. ent. Belgique, 45, 1901, (284).

*Coccinella* sp. United Provinces, predaceous upon *Monophlebus stebbingi*, description, life history, relations to the forest, protection, points for observation. **Stebbing**, E. P. Departmental Notes on Insects that affect Forestry. No. 2. Calcutta, 1903, (324, pl. XIX, fig. 5, a, b, c, d). 25 cm.

——— *conglobata*, Bemerkungen über die ersten Entwicklungsstadien. **Weise**, J. D. ent. Zs., Berlin, 1903, (164-166).

*Coelophora femorata* n. sp. **Weise**, J. Bruxelles, Ann. Soc. ent. Belgique, 45, 1901, (91).

*Corystes carifrons* n. sp. **Weise**, J. D. ent. Zs., Berlin, 1903, (208).

*Cycloneda pomacea* n. sp. **Weise**, J. l.c. (207).

*Epilachna* nn. spp. **Weise**, J. Bruxelles, Ann. Soc. ent. Belgique, 45, 1901, (280-281); D. ent. Zs., Berlin, 1903, (229-232).

*Epiphylax* nn. spp. Madagascar. **Fairmaire**, L. Bruxelles, Ann. Soc. Ent. Belgique, 45, 1901, (339); Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (242-243).

*Hippodamia rickmersi* n. sp. **Weise**, J. Bruxelles, Ann. Soc. ent. Belgique, 45, 1901, (281).

*Lithophilus minutus* n. sp., *L. cribratellus* Frm. var. *limbatus* n. var. **Pic**, M. Echange, Lyon, 19, 1903, (170).

——— *peyerimhoffi* n. sp. **Pic**, M. l.c. (89-90).

*Macroleisia* n. gen., *M. arcula* n. sp.  
Weise, J. D. ent. Zs., Berlin, 1903,  
(230-231).

*Megilla maculata* var. *floridana* n.  
var. Leng, C. W. New York, N.Y.,  
J. Ent. Soc., 11, 1903, (35-45, with pl.).

*Ortalia pectoralis* n. sp. Weise, J.  
Bruxelles, Ann. Soc. ent. Belgique, 45,  
1901, (284).

*Pelina geometrica* n. sp. Weise, J.  
l.c. (282).

*Platynaspis weyersi* n. sp. Weise, J.  
l.c. (92).

*Propiptus* n. gen., *P. subopacus* n. sp.  
Weise, J. l.c. (95-96).

*Pullus* nn. spp. Weise, J. l.c. (94).

\_\_\_\_\_ *saginata* n. sp. Weise, J.  
l.c. (285-286).

*Rodolia punctigera* n. sp. Weise, J.  
l.c. (93).

*Seymus limonii* n. sp. Isle of Wight.  
Donisthorpe, H. Ent. Rec., London, 15,  
1903, (287).

*Sidis relictus* n. sp. Weise, J.  
Bruxelles, Ann. soc. ent. Belgique, 45,  
1901, (96).

*Solanophila* nn. spp. Weise, J. l.c.  
(273-279).

*Sticholotis melanaria* n. sp. Weise, J.  
D. ent. Zs., Berlin, 1903, (232).

*Toxotoma rugulosa* n. sp. Weise, J.  
Bruxelles, Ann. Soc. ent. Belgique, 46,  
1901, (273).

*Verania bennigseni* n. sp. Weise, J.  
D. ent. Zs., Berlin, 1903, (231).

## ENDOMYCHIDAE.

*Danaë* nn. spp. Africa. Weise, J.  
D. ent. Zs., Berlin, 1903, (201-202).

*Dapsa graeca* n. sp. Pic, M. Echange  
Lyon, 17, 1903, (71-72).

\_\_\_\_\_ *syriaca* n. sp. Pic, M.  
l.c. (33).

*Rhymbus* nn. spp. Weise, J. D. ent.  
Zs., Berlin, 1903, (204-206).

*Stenotarsus* nn. spp. Africa. Weise,  
J. l.c. (202-203).

(n 2-9053)

## LATHRIDIIDAE.

## GENERAL.

Belon, O. P. Fascicule 4. Coleoptera  
clavicornia, fam. *Lathridiidae*. In:  
Wytman, Genera insectorum. Bruxelles  
1902, (40, av. 1 pl.). fr. 9.60.

## SPECIAL.

*Cortilena* Motsch, note sur le genre, et  
synopse de toutes les espèces actuelle-  
ment connues. Belon. Bruxelles, Ann.  
Soc. ent. Belgique, 45, 1901, (86-89).

*Enicmus anthracinus* Mnnh. sp. pr.  
Gerhardt, L. D. ent. Zs., Berlin, 1903,  
(238-239).

*Isidus letourneuxi* n. sp. Pic, M.  
Echange, Lyon, 17, 1903, (64).

## DERMESTIDAE.

*Brachysphyrus* n. gen., *B. inornatus*  
n. sp. Australia. Blackburn, T.  
Adelaide, S. Aust., Trans. R. Soc., 27,  
1903, (160).

*Cryptorhopalum* nn. spp. Australia.  
Blackburn, T. l.c. (169-170).

*Dermestes luganensis* n. sp. Stierlin,  
G. Schaffhausen, Mitt. Schweiz. Entomol.  
Ges., 10, 1902, (425-427).

*Hadrotoma marginata* Payk., a hatch-  
ing experiment. (Swedish) Mjöberg,  
E. Entomol. Tidskr., Stockholm, 22,  
1901, (189-190).

*Megatoma innotata* n. sp., *M. graeseri*  
Reitt var. *latenotata* n. var. Pic, M.  
Echange, Lyon, 17, 1902, (48).

*Trogoderma* un. spp. Australia.  
Blackburn, T. Adelaide, S. Aust., Trans.  
R. Soc. 27, 1903, (163-165).

\_\_\_\_\_ *aegyptiaca* n. sp. Assuan.  
Pic, M. Echange, Lyon, 17, 1901, (33).

## BYRRHIDAE.

*Curimus abbreviatus* n. sp. Sahlberg,  
J. Öfvers. F. Vet. Soc., Helsingfors,  
45, [No. 10], 1902-1903, (19).

*Microchaetes* nn. spp. Australia.  
Blackburn, T. Adelaide, S. Aust., Trans.  
R. Soc., 1903, (175-176).

*Pedilophorus speciosus* n. sp. **Sahlberg**, J. Ofvers. F. Vet. Soc., Helsingfors, **45**, [No. 10], 1902-1903, (20).

*Simplocaria* nn. spp. **Sahlberg**, J. l.c. (22-23).

## HETEROCERIDAE.

*Heterocerus* nn. spp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (178-179).

— nn. spp. Inde méridionale. **Grouvelle**, A. Paris, Ann. Soc. ent., **72**, (2<sup>e</sup> semest.), 1903, (345-346).

## PARNIDAE.

*Helmis illustris* n. sp. **Grouvelle**, A. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1902, (190).

*Sostea* nn. spp. Inde méridionale. **Grouvelle**, A. Paris, Ann. Soc. ent., **72**, (2<sup>e</sup> semest.), 1903, (344-345).

## CIOIDAE.

*Cis* nn. spp. **Reitter**. Brunn, Verh. Natf. Ver., **40**, (1901), 1902, (51-55).

*Lyctus canaliculatus*, résumé d'un mémoire de M. Louis Bureau (in Nantes, Bul. soc. sci. nat., **10**, (2<sup>e</sup> semest.), (1900). **Lefebvre**, A. Elbeuf, Bul. soc. sci. nat., **20**, 1901, [1902], (43-46).

*Rhopalodontus nororossicus* n. sp. **Reitter**. Brunn, Verh. Natf. Ver., **40**, (1901), 1902, (38).

*Xylographus tomicoides* n. sp. **Reitter**. l.c. (47).

## BOSTRICHIDAE.

### GENERAL.

Borkenkäfer in den Obatbäumen. Schweiz. Bauer, Bern, **56**, 1902, No. 18, (1-2).

**Barbey**, A. Ravages des bostriches dans les vergers de la vallée du Rhône. Journ. Soc. Agricult. Suisse Rom., Lausanne, **43**, 1902, (139-157, 163-179, av. 2 pls.).

**Lesne**, P. Liste des Bostrychides recueillis en Birmanie par feu M. G. Q. Corbett. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (85).

— La distribution géographique des coléoptères bostrychides dans ses rapports avec le régime alimentaire de ces insectes. Rôle probable des grandes migrations humaines. Paris, C.-R. Acad. sci., **137**, 1903, (133-135).

### SPECIAL.

*Apate capucina* L. **Du Buysson**, H. Feuille jeunes natural., Paris, (sér. 4), **34**, 1903, (19).

— **Giraudeau**, H. l.c. **33**, 1903, (223).

*Bostrichus*, Der Fichtenborkenkäfer J. W. A. Schweiz. Landw. Zeitschr., Aarau, **30**, 1902, (702-705, mit 3 Fig.).

— *capucinus* L. **Lesne**, P. Feuille jeunes natural., Paris, (sér. 4), **34**, 1903, (38).

— *parallelus* Lesne, Central Provinces, attacking bamboo, description, life history, relations to the forest, points for observation. **Stebbing**, E. P. Departmental notes on Insects that affect Forestry, No. 2. Calcutta, 1903, (174, pl. viii, fig. 2). 25 cm.

*Dinoderus pilifrons* Lesne, attacking bamboo in Mysore and Dehra Dun; *D. minutus*, Fabr. attacking bamboo in tropical regions, description, life, history, relations to the forest, protection, points for observation. **Stebbing**, E. P. Departmental notes on Insects that affect Forestry, No. 2. Calcutta, 1903, (168, pl. viii, fig. 1a, b 172). 25 cm.

*Sinoxylon crassum* Lesne, attacking "Sal" and *Terminalia tomentosa* trees in United Provinces, description, life history, protection and remedies. *S. anale* Lesne, attacking bambo (tent poles) in United Provinces. Note on protection. **Stebbing**, E. P. l.c. (164, 166). 25 cm.

## PTINIDAE.

*Anobium albonotatum* n. sp. **Pic**, M. Echange, Lyon, **19**, 1903, (100).

*Dasytanobium* n. gen., *D. inaequale* n. sp. **Pic, M.** l.c. 17, 1902, (23).

*Dorcatoma pilosella* n. sp. **Reitter**, Brunn, Verh. Natf. Ver., 40, (1901), 1902, (44).

*Dryophilus pusillus* var. *semipallidus* n. var. **Pic, M.** Echange, Lyon, 17, 1903, (79).

*Episernus henschi* n. sp. **Reitter**, E. Brunn, Verh. Natf. Ver., 40, (1901), 1902, (12).

*Ernobius* nn. spp. **Pic, M.** Echange, Lyon, 17, 1902, (79-80).

——— *normandi*, note. **Pic, M.** Paris, Bul. soc. ent., 1902, (250-251).

——— *schilskyi* n. sp. **Reitter**, E. Brunn, Verh. Natf. Ver., 40, (1901), 1902, (15).

*Gibboxyletinus*, essai dichotomique sur le genre. **Pic, M.** Bruxelles, Ann. Soc. ent. Belgique, 46, 1902, (132-133).

*Hedobia mazima* n. sp. **Pic, M.** Echange, Lyon, 19, 1903, (100).

*Lasioderma turkestanicum* n. sp. **Reitter**, E. Brunn, Verh. Nat. Ver., 40, (1901), 1902, (36).

*Microptinus melitensis* n. sp. **Pic, M.** Echange, Lyon, 19, 1903, (162).

*Niptomezium* n. gen., *N. patagonicum*, *N. sparsepilosum* nn. spp. Sibérie. **Pic, M.** l.c. 17, 1902, (50).

*Ochina bicolor* n. sp. **Osiki**, F. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., 1, 1903, (445-446).

*Paranobium forbesii* n. sp. **Gahan**, C. J. Nat. Hist. Sokotru, (290).

*Priartobium* n. gen., *P. serrifune* n. sp. **Reitter**, E. Brunn, Verh. Natf. Ver., 40, (1901), 1902, (24).

*Pinus*, synonymisches Verhältniss. **Voigts**, A. Allg. Zs. Ent., Neudamm, 8, 1903, (234-239).

——— nn. spp., n. var. Italie et Tunisie. **Pic, M.** Echange, Lyon, 17, 1901, (79).

——— (*Eutaphrus*) *atticus* n. sp. **Pic, M.** l.c. (32).

——— *kiesenretteri* Reitt. var. *cytherias* n. var. **Pic, M.** l.c. 19, 1903, (170).

——— *silvestrii* n. sp. Patagouie. **Pic, M.** l.c. 17, 1902, (49-51).

(n 2-9053)

*Santiagous* n. gen., *S. gothami* n. sp. **Pic, M.** l.c. 19, 1903, (107).

*Theca* nn. spp. **Pic, M.** l.c. 17, 1902, (80).

*Trichodesma lateritia* n. sp. **Pic, M.** l.c. 19, 1903, (106-107).

——— *pulchra* n. sp. **Pic, M.** l.c. (119).

*Trigonogenius perurianus* n. sp. **Pic, M.** l.c. (99).

*Tryptopithys dendrobiformis* n. sp. **Reitter**, Brunn, Verh. Natf. Ver., 40, (1901), 1902, (25).

*Xestobium ernobiforme* n. sp. **Reitter**, l.c. (13).

*Xyletinus* nn. spp. **Reitter**, l.c. (28-33).

——— nn. spp. **Pic, M.** Brésil. Bruxelles, Ann. Soc. ent. Belgique, 46, 1902, (17-18, 130-131).

——— nn. varr. **Pic, M.** Echange, Lyon, 17, 1902, (72).

*Xyletinus* n. subgen. of *Xyletinus*. **Reitter**, E. Brunn, Verh. Natf. Ver., 40, (1901), 1902, (28).

*Xyotrophorus barbarus* n. sp. **Pic, M.** Echange, Lyon, 19, 1903, (97-98).

——— *mouhoti* n. sp. **Pic, M.** l.c. 19, 1903, (99-100).

## MALACODERMIDAE.

### [INCL. MELYRIDAE.]

#### GENERAL.

**Olivier**, E. Coléoptères Lampyrides capturés à Dardjilling par M. Harmand. Bul. Muséum, Paris, 1903, (19-20).

#### SPECIAL.

*Anthocomus* (? *Paremballus*) *abdominalis* n. sp. **Pic, M.** Echange, Lyon, 19, 1903, (106).

*Astylus* nn. spp. **Pic, M.** l.c. (105).

*Attalus* nn. spp. Afrique. **Pic, M.** l.c. (113-115).

——— *guerryi* n. sp. **Pic, M.** Naturaliste, Paris, (sér. 2), 25, 1903, (81).

——— *meitensis* Peyr. var., *testaceipes* n. var. **Pic, M.** Echange, Lyon, 19, 1903, (169).

——— *sinensis* n. sp. **Pic, M.** l.c. (105-106).

- Cautires* nn. spp. **Bourgeois**, J. Paris, Ann. soc. ent., **71**, (2<sup>e</sup> semest.), 1902, [1903], (737-750).
- Cladophorus* nn. spp. **Bourgeois**, J. l.c. (737-750).
- Conderis foersteri* n. sp. **Bourgeois**, J. l.c. (737-750).
- Danaceae* nn. spp., n. var. **Pic**, M. Echange, Lyon, **17**, 1903, (31, 56, 79).
- nn. spp. **Sahlberg**, J. Öfvers. F. Vet. Soc., Helsingfors, **45**, [No. 10], 1902-1903, (29-31).
- nn. spp., *D. lysholmi* var. *subrobusta* n. var. **Pic**, M. l.c. **19**, 1903, (162-177).
- Dasytes* nn. spp. Danube, Samarcand. **Schilsky**, J. von. Küster, die Käfer Europas, **40**, (95-96).
- (*Matadasytes*) *bulgaricus* n. sp. **Pic**, M. Echange, Lyon, **17**, 1903, (129).
- minus* n. sp. **Sahlberg**, J. Öfvers. F. Vet. Soc., Helsingfors, **45**, [No. 10], 1902-1903, (32).
- Divales densepunctatus* n. sp. **Pic**, M. Echange, Lyon, **19**, 1903, (177).
- Drilus flavesceus* Rossi, life history. **Crawshaw**, I. R. London, Trans. Ent. Soc., **1903**, (39-52, pls. I-II).
- latithorax* n. sp. **Pic**, M. Echange, Lyon, **17**, 1902, (24).
- Haplochrous* nn. spp. **Pic**, M. Naturaliste, Paris, (sér. 2), **25**, 1903, (81).
- flavolimbatus* Muls. var. *cretica* n. var. **Pic**, M. Echange, Lyon, **19**, 1903, (177).
- Haplocnemus* nn. spp., *H. pertusus* var. *elongation* n. var. **Pic**, M. Echange, Lyon, **17**, 1902, (32).
- nn. spp. *Konia*. **Schilsky**, J. Küster, die Käfer Europas, **40**, (97-98).
- Hypebaeus cameroni*. **Pic**, M. Echange, Lyon, **19**, 1903, (177).
- flavicollis* Er. var. *obscurithorax* n. var. **Pic**, M. l.c. (129).
- Laius jucundus* var. *maculithorax* n. var. **Pic**, M. Naturaliste, Paris, (sér. 2), **25**, 1903, (81).
- Luciola nitescens* n. sp. Darjeeling. **Olivier**, E. Bul. Muséum, Paris, **1903**, (19-30).
- perrieri* n. sp. **Fairmaire**, L. Paris, Ann. soc. ent., **72**, (2<sup>e</sup> semest.), 1903, (205).
- Lygistopter* (*Adoceta*) *barkeri* n. sp. **Bourgeois**, J. l.c. **71**, (2<sup>e</sup> semest.), 1902, [1903], (737-750).
- Malachius atticus* n. sp., *M. sponus* var. *cypricus* n. var. **Pic**, M. Echange, Lyon, **17**, 1902, (24).
- rubidus* Er., seine Varietäten und sein Verbreitungsgebiet. **Baeckmann**, J. J. Rev. Russ. Ent., Jaroslavl, **3**, 1903, (92-93, mit 1 Fig.).
- Malchinus tokatensis* n. sp. **Pic**, M. Echange, Lyon, **19**, 1903, (97).
- Malhinus pallidipes* Frm. var. *biinterruptus* n. var. **Pic**, M. l.c. (169).
- taygetanus* n. sp., *M. turcius* var. *dalmatinus* n. var. **Pic**, M. l.c. **17**, 1902, (63-64).
- Malthodes* nn. spp. **Pic**, M. l.c. **19**, 1903, (155-158).
- (*Podistrina*) *bugnioni* n. sp. **Pic**, M. l.c. **17**, 1902, (71).
- nn. spp., *M. argivus* Ksu var. *hymettensis* n. var. **Pic**, M. l.c. (161-162, 169).
- guttifer* var. *robustior* n. var. **Pic**, M. l.c. (153-155).
- (*Podistrina*) *latithorax* n. sp. Afrique. **Pic**, M. l.c. **19**, '03, (113-115).
- semilimbatus* n. sp. **Pic**, M. l.c. (90).
- Ospia cylindromorpha* var. *delagrangi* n. var. **Pic**, M. l.c. **17**, 1902, (64).
- Phosphaenus hemipterus* Goetz, capture. **Viturat**, abbé. l.c. (69-70).
- Plateros dispallens* Wlk. attacking teak in the Central Provinces; *P. sp.* attacking teak in Central Provinces, description, life history, relations to the forest, points for observation. **Stebbing**, E. P. Departmental notes on Insects that affect Forestry. No. 2. Calcutta, 1903, (176, 178, pl. VIII, fig. 3).

*Podabuus luteonotatus* n. sp., nn. varr.  
Pic, M. Echange, Lyon, 17, 1903, (47, 55).

———— *procerulus* var. *bosnicus*  
n. var. Pic, M. l.c. 19, 1903, (115).

*Podistrina impennis* n. sp. ♂ Tunisia.  
Pic, M. l.c. 17, 1902, (35).

———— *notaticollis* Brg. sp., P.  
*latepallida*, P. *viturati* nn. spp. Pic, M.  
l.c. (48).

———— *cameroni* n. sp. Pic, M.  
l.c. 19, 1903, (155–158).

*Psilodadus harmandi* n. sp. Dar-  
jeeling. Olivier, E. Bul. Muséum,  
Paris, 1903, (19–20).

*Rhagonycha* de France. Pic, M.  
Echange, Lyon, 17, 1902, (53–54).

———— (*Armidia*) *signata* Gerin.  
sp., nn. spp. Pic, M. l.c. (55–56).

*Silis* nn. spp. Fairmaire, L. Paris,  
Ann. soc. ent., 71, (2<sup>e</sup> semest.), 1903,  
(205–206).

*Telephorus*, pluie de chenilles.  
Forel, F. Lausanne, Bul. Soc. Sci. Nat.,  
(sér. 4), 39, 1903, (XXXIX–XL); Arch.  
Sci. Phys., Genève, (sér. 4), 16, 1903,  
(347–348).

———— larves. Pluie de chenilles.  
Faes, H. Arch. Sci. Phys., Genève,  
(sér. 4), 16, 1903, (239).

*Troglops palaestinus* n. sp. Pic, M.  
Echange, Lyon, 17, 1902, (31).

*Urodactylus unicipennis* n. sp. Pic, M.  
l.c. 19, 1903, (106).

*Xylobanus* nn. spp. Bourgeois, J.  
Paris, Ann. soc. ent., 71, (2<sup>e</sup> semest.),  
1902, [1903], (737–750).

## CLERIDAE.

## GENERAL.

Schenkling, S. Coleoptera malaco-  
dermaea fam. Cleridae. In: Wytzman,  
P., Genera Insectorum. Bruxelles,  
1903, (124, et 5 pls. hors texte). 4to.  
fr. 35,10.

———— Zur Systematik der Cleri-  
den. D. ent. Zs., Berlin, 1903, (9–16).

## SPECIAL.

*Apopemopsis* n. gen. (~ *Cardiostichus*),  
*A. pulchra* n. sp. Schenkling, S.  
Stettiner ent. Ztg, 64, 1903, (17).

*Archalius* n. gen., *A. densegranatus*  
n. sp. Madagascar. Fairmaire, L.  
Paris, Ann. soc. ent., 71, (2<sup>e</sup> semest.),  
1902, (532–568).

*Aulicus?* *saturatus* n. sp. Mada-  
gascar. Fairmaire, L. l.c. (532–568).

*Blaesiophthalmus* n. nom. for *Metabasis*  
Gorh. Schenkling, S. In: Wytzman,  
P., Genera Insectorum, Bruxelles, 1903,  
(47).

*Cladiscus perrieri* n. sp. Madagascar.  
Fairmaire, L. Paris, Ann. soc. ent.,  
71, (2<sup>e</sup> semest.), 1902, (532–568).

*Clerus*, der Gattungsnamen. Schenk-  
ling, S. Allg. Zs. Ent., Neudamm, 8,  
1903, (202–204).

*Clerus* sp. predaceous on bark and  
wood borers, description, life history,  
relations to the forest, protection, points  
for observation. Stebbing, E. P. De-  
partmental notes on Insects that affect  
Forestry. No. 2. Calcutta, 1903, (213,  
pl. x, figs. 4, a-b). 25 cm.

———— *scitulus* n. sp. Schenk-  
ling, S. Budapest, Ann. Hist.-Nat.  
Mus. Nat. Hung., 1, 1903, (396).

*Cylidrus cyaneus* Fabr., faunistische  
Bemerkungen. Schenkling, S. l.c.  
(397–399).

*Damiricus* n. gen., *D. cribripennis* n.  
sp. Madagascar. Fairmaire, L. Paris,  
Ann. soc. ent., 71, (2<sup>e</sup> semest.), 1902,  
(532–568).

*Evenus* nn. spp. Madagascar. Fair-  
maire, L. l.c. (532–568).

*Eburiza* nn. spp., *E. kingi* nn. varr.  
Madagascar. Fairmaire, L. l.c. (532–  
568).

*Lemidia malhinus* Newm., *L. hilaris*  
Newm., faunistische Bemerkungen.  
Schenkling, S. Budapest, Ann. Hist.-  
Nat. Mus. Nat. Hung., 1, 1903, (399).

*Lyostylus* nn. spp. Madagascar.  
Fairmaire, L. Paris, Ann. soc. ent.,  
71, (2<sup>e</sup> semest.), 1902, (532–568).

*Myrmecomaia* nn. spp. Madagascar.  
Fairmaire, L. l.c. (532–568).

*Opilo* nn. spp. Madagascar. Fair-  
maire, L. l.c. (532–568).

———— *domesticus* var. *subdeletus*  
Pic, M. Echange, Lyon, 19, 1903, (153–  
155).

*Pallenis* nn. spp. Madagascar. **Fairmaire**, L. Paris, Ann. soc. ent., **71**, (2<sup>e</sup> semest.), 1902, (532-568).

*Patu'cius* n. gen., *P. ovulum*, *P. rufonitens*, *P. terminatus*, *P. ustulatus* nn. spp. Madagascar. **Fairmaire**, L. l.c. (532-568).

*Pelonium* nn. spp. Brazil. **Gorham**, H. S. D. ent. Zs., Berlin, **1903**, (169-171).

*Rhopaloclerus* nn. spp. Madagascar. **Fairmaire**, L. Paris, Ann. soc. ent., **71**, (2<sup>e</sup> semest.), 1902, (532-568).

*Salarium* n. gen., *S. mirum* n. sp. Madagascar. **Fairmaire**, L. l.c. (532-568).

*Stenocyldrus* nn. spp. Madagascar. **Fairmaire**, L. l.c. (532-568).

*Stenoplicum* n. gen., *S. perrière* n. sp. Madagascar. **Fairmaire**, L. l.c. (532-568).

*Synellapus* n. gen., *S. indigaceus* n. sp. Madagascar. **Fairmaire**, L. l.c. (532-568).

*Teloclerus* n. gen. **Schenkling**, S. in Wytman P., Genera Inae ctorum, Bruxelles, 1903, (9).

*Tenerus vittipennis* n. sp. **Schenkling**, S. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., **1**, 1903, (306-397).

*Thanasimus* sp. prox. *nigricollis* from N.W. Himalayas. Description of beetle, larva, and life history and food. A note on the discovery of *Thanasimus* sp. prox. *nigricollis*. **Stebbing**, E. P. Calcutta, J. As. Soc. Beng., **72**, pt. ii, 1903, (101-110).

*Tilloclerus griseocaulatus* n. sp. Madagascar. **Fairmaire**, L. Paris, Ann. soc. ent., **71**, (2<sup>e</sup> semest.), 1902, (532-568).

*Tillus apicolis* n. sp. Madagascar. **Fairmaire**, L. l.c. (532-568).

*Trichodes*, der Gattungsname. **Schenkling**, S. Allg. Zs. Ent., Neudamm, **8**, 1903, (202-204).

*Tricladus* n. gen., *T. alluaudi* n. sp. Madagascar. **Fairmaire**, L. Paris, Ann. soc. ent., **71**, (2<sup>e</sup> semest.), 1902, (532-568).

*Trogodendron aurotomentosum* n. sp. **Schenkling**, S. Stettiner ent. Ztg., **64**, 1903, (17).

*Xenorthrius simplex* n. sp. **Schenkling**, S. l.c. (16).

## ELATERIDAE.

*Ade'ocera angustata* n. sp. **Sahlberg**, J. Helsingfors, Öfvers. F. Vet. Soc., **45**, [No. 10], 1902-1903, (25).

*Aeolus* nn. spp. Südamerika. **Schwarz**, O. D. ent. Zs., Berlin, **1903**, (65-69).

*Agonischius* nn. spp. Indo-Chine française. **Floutiaux**, E. Paris, Ann. soc. ent., **71**, (2<sup>e</sup> semest.), 1903, (569-580).

*Agrypnus moseri* n. sp. **Schwarz**, O. D. ent. Zs., Berlin, **1903**, (357).

*Athous exclamatoris* n. sp. Nordamerika. **Schwarz**, O. l.c. (58).

*Campylus acutongulus* n. sp. **Sahlberg**, J. Öfvers. F. Vet. Soc., Helsingfors, **45**, [No. 10], 1902-1903, (26).

*Cardiophorus* nn. spp. **Fairmaire**, L. Paris, Ann. soc. ent., **72**, (2<sup>e</sup> semest.), 1903, (204).

nn. spp. **Schwarz**, O. D. ent. Zs., Berlin, **1903**, (370-372).

*Cebrio gigas* F., nouvel habitat. **Pic**, M. Echange, Lyon, **19**, 1603, (184).

*Chrosis coledonica* n. sp. **Schwarz**, O. D. ent. Zs., Berlin, **1903**, (390).

*Corymbites trapezicollis* n. sp. Nordamerika. **Schwarz**, O. l.c. (59).

*Cosmesus flavus* n. sp. Südamerika. **Schwarz**, O. l.c. (77).

*Crepidomenus* nn. spp. **Schwarz**, O. l.c. (391-392).

*Cryptohypnus parvulus* n. sp. Indo-Chine française. **Floutiaux**, E. Paris, Ann. soc. ent., **71**, (2<sup>e</sup> semest.), 1902, (575).

tristis n. sp. **Fairmaire**, L. l.c. **72**, (2<sup>e</sup> semest.), 1903, (203-204).

*Ctenicera fairmairei* n. sp. Madagascar. **Floutiaux**, E. Naturaliste, Paris, (sér. 2), **25**, 1903, (45).

*Dicronychus ambiguus* n. sp. **Schwarz**, O. D. ent. Zs., Berlin, **1903**, (365).

*Diiteniophorus* nn. spp. **Schwarz**, O. l.c. (396-397).

*Diploconus nigerrimus* n. sp. Indo-Chine française. **Floutiaux**, E. Paris, Ann. Soc. ent., **71**, (2<sup>e</sup> semest.), 1903, (569-580).

*Dorygonus holomelas* n. sp. **Fairmaire**, L. l.c. **72**, (2<sup>e</sup> semest.), 1903, (203).

*Drasterius* nn. spp. Nordamerika.  
Schwarz, O. D. ent. Zs., Berlin, 1903,  
(57-58).

*Elatér ruficeps* var. *semiobscurus* n.  
var. Pic, M. Échange, Lyon, 17, 1902,  
(72).

*Ethesopus* nn. spp. Südamerika.  
Schwarz, O. D. ent. Zs., Berlin, 1903,  
(75-76).

*Euplastius* n. gen. (~ *Aplastus* Lec.),  
*E. athoiformis*, *E. athoides* nn. spp.  
Nordamerika. Schwarz, O. l.c. (60-62).

*Glyphonyx* nn. spp. Indo-Chine fran-  
çaise. Fleutiaux, E. Paris, Ann. Soc.  
ent., 71, (2<sup>e</sup> semest.), 1903, (569-580).

*Hapatesus minutus* n. sp. Schwarz,  
O. D. ent. Zs., Berlin, 1903, (395).

*Hemicleus minutus* n. sp. Schwarz, O.  
l.c. (358).

*Hemiops substriata* n. sp. Indo-Chine  
française. Fleutiaux, E. Paris, Ann.  
Soc. ent., 71, (2<sup>e</sup> semest.), 1903, (569-  
580).

*Horistonotus cinctipennis* n. sp. Süd-  
amerika. Schwarz, O. D. ent. Zs.,  
Berlin, 1903, (74).

*Hypnoidus monadicoides* n. sp.  
Schwarz, O. l.c. (360).

*Idiotropia capensis* n. sp. Schwarz,  
O. l.c. (375).

*Laeon* nn. spp. Fairmaire, L. Paris,  
Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903,  
(181-259).

———— nn. spp. Indo-Chine fran-  
çaise. Fleutiaux, E. l.c. 71, (2<sup>e</sup> semest.),  
1903, (569-580).

———— nn. spp. Schwarz, O.  
D. ent. Zs., Berlin, 1903, (377-381).

*Lobotarsus* nn. spp. Schwarz, O.  
l.c. (360-362).

*Lisomus* nn. spp. Deutsch Ostafrika.  
Schwarz, O. l.c. (399-400).

*Ludius (Metanomus) atriceps* n. sp.  
Sahlberg, J. Öfers. F. Vet. Soc.,  
Helsingfors, 45, [No. 10], 1902-1903,  
(24).

———— (*Hypoganus*) *cinctus* var.  
*akbesiana* n. var. Pic, M. Échange,  
Lyon, 19, 1903, (129).

*Lycoreus decorsei* n. sp. Madagascar.  
Fleutiaux, E. Naturaliste, Paris, (sér.  
2), 25, 1903, (45).

*Lycoreus oculipennis* n. sp. Mada-  
gascar. Fairmaire, L. l.c. 23, 1903,  
(36).

*Margogastrus* n. nom. = *Gastrimargus*  
Schw. Schwarz, O. Stettiner. ent. Ztg.  
1902, (309); D. ent. Zs., Berlin, 1903,  
(80).

*Megapenthes* nn. spp. Indo-Chine  
française. Fleutiaux, E. Paris, Ann.  
Soc. ent., 71, (2<sup>e</sup> semest.), 1903, (569-  
580).

———— nn. spp. Schwarz, O. D.  
ent. Zs., Berlin, 1903, (367-368).

*Metablax* nn. spp. Schwarz, O. l.c.  
(393-395).

*Monocrepidius* nn. spp. Südamerika.  
Schwarz, O. l.c. (63-64, 383-389).

———— *jobii* n. sp. Indo-Chine  
française. Fleutiaux, E. Paris, Ann.  
Soc. ent., 71, (2<sup>e</sup> semest.), 1903, (569-  
580).

*Nomoplex flavus* n. sp. Schwarz, O.  
D. ent. Zs., Berlin, 1903, (374).

*Odontonychus sambesianus* n. sp.  
Schwarz, O. l.c. (366).

*Palaeozenus (Cryptostoma) dohrnii*.  
Fenyos, A. Philadelphia, Pa., Ent.  
News Acad. Nat. Sci., 14, 1903, (220).

*Paracardiophorus dissimilis* n. sp.  
Schwarz, O. D. ent. Zs., Berlin, 1903,  
(390).

———— *jenisseensis* n. sp. Sahl-  
berg, J. Öfers. F. Vet. Soc., Helsing-  
fors, 45, [No. 10], 1902-1903, (27).

*Paracosmesus* nn. spp. Südamerika.  
Schwarz, O. D. ent. Zs., Berlin, 1903,  
(79).

*Parapomachilius brunnipennis* n. sp.  
Südamerika. Schwarz, O. l.c. (73).

*Parhemiopinus* n. gen., *P. nigripennis*  
n. sp. Schwarz, O. l.c. (357-376).

*Pectocera sulcata* n. sp. Indo-Chine  
française. Fleutiaux, E. Paris, Ann.  
Soc. ent., 71, (2<sup>e</sup> semest.), 1903, (573).

*Pomachilius* nn. spp. Südamerika.  
Schwarz, O. D. ent. Zs., Berlin, 1903,  
(70-72).

*Silesis difficilis* n. sp. Indo-Chine  
française. Fleutiaux, E. Paris, Ann.  
Soc. ent., 71, (2<sup>e</sup> semest.), 1903, (569-  
580).



*Seatoderus* nn. spp. **Schwarz**, O. D. ent. Zs., Berlin, 1903, (373).

— *peruanus* n. sp. **Schwarz**, O. l.c. (63-80).

*Symphostethus* n. gen., *S. collaris* n. sp. **Schwarz**, O. l.c. (382).

*Tetralobus* nn. spp. **Schwarz**, O. l.c. (363-384).

*Tilotarsus* nn. spp. **Schwarz**, O. l.c. 358-359).

## BUPRESTIDAE.

### GENERAL.

**Kerremans**, C. Considérations sur les Buprestides. Bruxelles, Ann. Soc. ent. Belgique, 45, 1901, (165-173).

— Fasc. 12. Coleoptera serri-cornia. Pts. 1-3 fam. *Buprestidae*. In: Wytman, P., Genera insectorum, Bruxelles, 1902-1903, (1-240). fr. 9.60.

**Skinner**, H. Notes on *Buprestidae* (Coleoptera), with descriptions of new species. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (236-239, with 1 pl.).

### SPECIAL.

*Acmaeodera biedermanni* n. sp. **Skinner**, H. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (239).

— *bipunctata* var. *jacqueti* n. var. **Pic**, M. Échange, Lyon, 19, 1903, (161).

— *falli* n. nom. for *subcyanea* Fall; nn. spp. Mexico, Colorado, Chili. **Kerremans**, C. in: Wytman, P., Genera insectorum, Bruxelles, 1902, (28-29, 34).

*Atenodes pyropyga* n. sp. **Fairmaire**, L. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (200).

*Agaeocera fenyesi* n. sp. Mexico. **Kerremans**, C. In: Wytman, P., Genera Insectorum, Bruxelles, 1903, (60).

*Agilaxia* n. gen., *A. gounellei*, *A. bella*, *A. saturalis*, *A. lata*, *A. rugosa* nn. spp. S. America. **Kerremans**, C. In: Wytman, P. l.c. (177-179).

*Anilara tasmanica* n. sp. **Kerremans**, C. In: Wytman, P. l.c. (170).

— *viridula* n. sp. **Kerremans**, C. Hamburg, Jahrb. Wiss. Anst., 19, (1901), Beih. 2, 1903, (60).

*Anthazia* nn. spp. **Kerremans**, C. In: Wytman, P., Genera Insectorum, Bruxelles, 1903, (172-174).

*Aphanisticus emarginatus* F., new to Britain. **Donisthorpe**, H. Ent. Rec., London, 15, 1903, (265).

*Brachycoraeus* n. gen. **Kerremans**, C. In: Wytman, P., Genera Insectorum, Bruxelles, 1903, (234).

*Briseis curta* n. sp. **Kerremans**, C. In: Wytman, P. l.c. (162).

*Chaleophorella* n. gen. **Kerremans**, C. In: Wytman, P. l.c. (79).

*Chalcoplia thoracica* n. sp. **Kerremans**, C. In: Wytman, P. l.c. (79).

*Chrysobothris* nn. spp. **Kerremans**, C. In: Wytman, P. l.c. (184-188).

— *platensis* n. sp. **Kerremans**, C. Hamburg, Jahrb. wiss. Anst., 19, (1901), Beih. 2, 1903, (60).

*Chrysochroa fulvipes* n. nom. for *kerremansi* Weyers. **Kerremans**, C. in: Wytman, P., Genera Insectorum, Bruxelles, 1902, (48).

*Chrysodema roseiventris* n. sp. **Kerremans**, C. In: Wytman, P. l.c. (75).

*Cisseis* nn. spp. **Kerremans**, C. In: Wytman, P. l.c. (228-229).

*Coroebus fasciatus* Vill. — *bifasciatus* Ol. et ses parasites. **Ferraudière**, R. de la. Paris, Bul. soc. ent., 1902, (251-253).

*Corydon* nn. spp. **Kerremans**, C. In: Wytman, P., Genera Insectorum, Bruxelles, 1903, (225).

*Cryptodactylus weyeri* n. sp. **Kerremans**, C. In: Wytman, P. l.c. (225).

*Cyphogastra* nn. spp. **Kerremans**, C. In: Wytman, P. l.c. (87).

*Dactylozodes* nn. spp. **Kerremans**, C. In: Wytman, P. l.c. (215).

*Discoderes* nn. spp. **Kerremans**, C. In: Wytman, P. l.c. (223).

*Ectinogonia intermedia* n. sp. **Kerremans**, C. In: Wytman, P. l.c. (129).

*Entomogaster cyanipennis* n. sp. **Fairmaire**, L. Paris, Ann. soc. ent., **72**, (2<sup>e</sup> semest.), 1903, (201).

*Euamyia* n. nom. for *Eumerus*. **Kerremans**, C. In: Wytsman, P., Genera Insectorum, Bruxelles, 1903, (238).

*Halecia fulvipes* n. sp. **Kerremans**, C. In: Wytsman, P. l.c. (70).

*Haplotrinchus* n. gen., *H. australicus* n. sp. **Kerremans**, C. In: Wytsman, P. l.c. (126-127).

*Hyperantha* nn. spp. **Kerremans**, C. In: Wytsman, P. l.c. (216).

*Iritotaenia wahnesi* n. sp. Nouvelle-Guinée allemande. **Heller**, K. M. Bruxelles, Ann. Soc. ent. Belgique, **46**, 1902, (234-235).

*Isaniris cribripennis* n. sp. Madagascar. **Fairmaire**, L. l.c. **45**, 1901, (227-228).

*Julodella* Sem., synopsis specierum, 2 nn. spp. **Semenov**, A. P. Rev. Russ. Ent., Jaroslavl, **3**, 1903, (161-165).

*Julodis bucharica* Sem. 1893, additamentum ad descriptionem. **Semenov**, A. P. l.c. (190).

—— *lacteola* n. sp. S. Africa. **Kerremans**, C. in: Wytsman, P., Genera Insectorum, Bruxelles, 1902, (12).

*Madecassia* n. gen. **Kerremans**, C. In: Wytsman, P. l.c. 1903, (82).

*Megaloxanthia* n. subgen. (*Chrysoschroa*) for *bicolor* Fabr., &c. **Kerremans**, C. in: Wytsman, P. l.c. 1902, (47).

*Melanophila australasiae* n. sp. **Kerremans**, C. Hamburg, Jahrb. wiss. Anst., **19**, (1901), Beih. 2, 1903, (59).

*Melobasis* nn. spp. **Kerremans**, C. In: Wytsman, P., Genera Insectorum, Bruxelles, 1903, (158-159).

*Metasambus* n. gen. **Kerremans**, C. In: Wytsman, P. l.c. (237).

*Nasciodes* n. gen. **Kerremans**, C. In: Wytsman, P. l.c. (147).

*Neobuprestis* n. gen. **Kerremans**, C. In: Wytsman, P. l.c. (136).

*Neocoraebus* n. gen. **Kerremans**, C. In: Wytsman, P. l.c. (230).

*Neojulodis* n. subgen. (*Julodis*) for *J. picta*. Thunb. **Kerremans**, C. in: Wytsman, P. l.c. 1902, (6-13).

*Nisibia* n. gen., *N. boopis* n. sp. Madagascar. **Fairmaire**, L. Naturaliste, Paris, (sér. 2), **23**, 1903, (9-11, 35-37).

*Paracastalia* n. gen. for *P. playiata*, *P. duvivieri*. **Kerremans**, C. in: Wytsman, P., Genera Insectorum, Bruxelles, 1902, (17, 22).

*Paraeuptya bellicosa* n. sp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (181).

—— *capitata* n. sp. **Kerremans**, C. In: Wytsman, P., Genera Insectorum, Bruxelles, 1903, (84).

—— *marginalis* n. sp. **Kerremans**, C. Hamburg, Jahrb. wiss. Anst., **19**, (1901), Beih. 2, 1903, (58).

*Pithiscus* nn. spp. **Kerremans**, C. In: Wytsman, P., Genera Insectorum, Bruxelles, 1903, (201-202).

*Polybothris* nn. spp. **Fairmaire**, L. Paris, Ann. soc. ent., **72**, (2<sup>e</sup> semest.), 1903, (200).

*Polycestella* n. gen., for *Polycesta curta* Kerr. **Kerremans**, C. in: Wytsman, P., Genera Insectorum, Bruxelles, 1902, (17, 25).

*Polycestoides* n. gen., *P. chrysis* n. sp. Borneo. **Kerremans**, C. in: Wytsman, P. l.c. (17, 27).

*Pseudotaenia* n. gen. **Kerremans**, C. In: Wytsman, P. l.c. 1903, (81).

*Ptiloptera* nn. spp. **Kerremans**, C. In: Wytsman, P. l.c. (95-102).

*Ptosima-maculata* Herb var. *brevinotata* n. var. **Plc**, M. Echange, Lyon, **19**, 1903, (169).

*Pygicera* n. gen. **Kerremans**, C. In: Wytsman, P., Genera Insectorum, Bruxelles, 1903, (145).

*Sphenoptera*, revision des espèces de la région éthiopienne. 5 nn. spp. Supplément. **Jakovlev**, V. E. St. Petersburg, Hor. Soc. Ent. Ross., **36**, 1903, (231-239).

—— subgen., *Chrysoblemma* Jak. paléarctiques, 5 nn. spp. from Transcaucasia, Persia, Algeria. **Jakovlev**, V. l.c. (248-277).

—— nn. spp. **Kerremans**, C. In: Wytsman, P., Genera Insectorum, Bruxelles, 1903, (112-123).

*Sphenoptera fallaciosa* n. nom. = *S. dianthi* Gory 1841. Notes coléoptérologiques IV. **Jakovlev**, V. E. Rev. Russ. Ent., Jaroslavl, **3**, 1903, (215-216).

———— *oporina* n. sp. Transcaucasie. **Jakovlev**, V. E. l.c. (386-387).

———— *karelini* Fald., notes. **Jakovlev**, V. E. l.c. (33-35).

*Sponsor oblongus* n. sp. Mauritius. **Kerremans**, C. in: **Wylaman**, P., Genera Insectorum. Bruxelles, 1902.

*Steraspis fischeri* n. sp. **Kerremans**, C. Hamburg, Jahrb. Wiss. Anst., **19**, (1901), Beih. 2, 1903, (57).

*Sternocera sternicornis* L., Eier. **Reichert**, A. Ent. Jahrb., Leipzig, **12**, 1903, (174-175).

*Stigmodera* nn. spp. **Blackburn**, T. Australia. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (306-307).

———— nn. spp. **Kerremans**, C. In: **Wytzman**, P., Genera Insectorum, Bruxelles, 1903, (207-210).

*Strigula coerulea* n. sp. **Kerremans**, C. In: **Wytzman**, P. l.c. (224).

*Trachys pustulosa* n. sp. **Fairmaire**, L. Paris, Ann. soc. ent., **72**, (2<sup>e</sup> semest.), 1903, (201).

*Tyndaris* nn. spp. **Schwarz** ms. in **Skinner**, H. Philadelphia, Pa., Ent. News Acad. Nat. Sci., **14**, 1903, (236-239, with pl.).

———— *chamaeleonis* n. sp. **Skinner**, H. l.c. (236-239, with pl.).

*Yanima* n. gen. **Kerremans**, C. In: **Wytzman**, P., Genera Insectorum, Bruxelles, 1903, (143).

## TENEBRIONIDAE.

### GENERAL.

**Reitter**, E. Bestimmungs-Tabelle der Tenebrioniden - Abtheilungen: Tentyrini und Adelostomini aus Europa und den angrenzenden Ländern. Brunn, Verh. Natf. Ver., **39**, (1900), 1901, (82-197).

### SPECIAL.

*Adaxius perrieri* n. sp. Madagascar. **Fairmaire**, L. Paris, Ann. soc. ent., **72**, (2<sup>e</sup> semest.), 1903, (200).

*Adelostoma subtile* n. sp. **Reitter**. Brunn, Verh. Natf. Ver., **39**, (1900), 1901, (82-197).

*Anatolia* nn. spp. **Reitter**. l.c. (110-127).

*Asida hispidula* n. sp. Afrique. **Pic**, M. Echange, Lyon, **19**, 1903, (113-115).

*Caedius brevis* n. sp. **Fairmaire**, L. Paris, Ann. soc. ent., **72**, (2<sup>e</sup> semest.), 1903, (207).

*Calyptopsis escherichi* n. sp. **Reitter**. Brunn, Verh. Natf. Ver., **39**, (1900), 1901, (82-197).

*Camaria* nn. spp. Tonkin. **Fairmaire**, L. Bruxelles, Ann. Soc. ent. Belgique, **47**, 1903, (15-17).

*Camarodes suturatus* n. sp. **Fairmaire**, L. Paris, Ann. soc. ent., **72**, (2<sup>e</sup> semest.), 1903, (209).

*Cedrosius caeruleus* n. sp. **Fairmaire**, L. l.c. (209).

*Chirocharis* n. gen. = *Chiroscelis australis* Westw. **Kolbe**, H. J. Arch. Natg., Berlin, **69**, Bd 1, 1903, (179).

*Cilibe* nn. spp. Chatham Islands and New Zealand. **Sharp**, D. Ent. Mag., London, **39**, 1903, (105-109).

*Colposcelis* nn. spp. **Reitter**. Brunn, Verh. Natf. Ver., **39**, (1900), 1901, (82-197).

*Corticeus rufithorax* n. sp. **Pic**, M. Echange, Lyon, **19**, 1903, (162-163).

*Cyriogelon* nn. spp. Tonkin. **Fairmaire**, L. Bruxelles, Ann. Soc. ent. Belgique, **47**, 1903, (13-20).

*Dendarus latissimus* n. sp. **Stierlin**, G. Schaffhausen, Mitt. Schweiz. Entomol. Ges., **10**, 1902, (425-427).

*Drosphaerus crassicornis* n. sp. Tonkin. **Fairmaire**, L. Bruxelles, Ann. Soc. ent. Belgique, **47**, 1903, (13).

*Eorophanta* n. subgen. for *Eorophila* preocc. **Semenov**, A. Rev. Russ. Ent., Jaroslavl, **3**, 1903, (172).

*Eorophila* n. subgen. for *Platypus autumnalis* n. sp. **Semenov**, A. P. l.c. (8-13).

- Erulipus* n. gen., *E. fruhstorferi* n. sp. Tonkin. **Fairmaire**, L. Bruxelles, Ann. Soc. ent. Belgique, **47**, 1903, (14).
- Eucyrtus* nn. spp. Ceylon. **Oertzen**, E. von. D. ent. Zs., Berlin, **1903**, (234).
- Eulipus punctidorsis* n. sp. **Reitter**, Brunn, Verh. Natf. Ver., **39**, (1900), 1901, (82-197).
- Eutagenia minutissima* n. sp. **Pic**, M. Echagne, Lyon, **19**, 1903, (162).
- Eutochia* nn. spp. **Fairmaire**, L. Paris, Ann. soc. ent., **72**, (2<sup>e</sup> semest.), 1903, (208).
- Ezangelus gracilior* n. sp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (303).
- Gerandryus spadix* var., *hymettensis* n. var. **Pic**, M. Echagne, Lyon, **17**, 1902, (64).
- Gnathosia* nn. spp. **Reitter**, Brunn, Verh. Natf. Ver., **39**, (1900), 1901, (82-197).
- Gonodera bicolor* Reitt var., *obscuripes* n. var. **Pic**, M. Echagne, Lyon, **17**, 1902, (56-57).
- *delagrangeri*, l'identité générique. **Pic**, M. l.c. (68-69).
- *macrophthalma* Reth. var. *laticornis* n. var. **Pic**, M. l.c. **19**, 1903, (163).
- Habrobates* n. gen., *H. vernalis* n. sp. Transcaspiæ. **Semenov**, A. P. Rev. Russ. Ent., Jaroslavl', **3**, 1903, (11-12).
- Hegeterocara* n. gen., *H. arabica* n. sp. **Reitter**, Brunn, Verh. Natf. Ver., **39**, (1900), 1901, (190).
- Helops* (*Nalassus*) *phaeus* n. sp. **Sahlberg**, J. Öfvers. F. Vet. Soc., Helsingfors, **45**, [No. 10], 1902-1903, (33).
- Hemipristis* n. gen., *H. ukamia* n. sp. **Kolbe**, H. J. Arch. Natg., Berlin, **69**, Bd 1, 1903, (177-178).
- Hyonthis* nn. spp. **Reitter**, Brunn, Verh. Natf. Ver., **39**, (1900), 1901, (139).
- Hypophloeus flacipennis* Mots. found in *Pinus gerardiana* in bark beetle galleries; description and note. **Stebbing**, E. P. Departmental Notes on Insects that affect forestry No. 2 Calcutta, 1903, (274, pl. XIII, fig. 5). 25 cm.
- Melasmocara* n. gen. **Reitter**, Brunn, Verh. Natf. Ver., **39**, (1900), 1901, (82-197).
- Menostenopa brevicornis* n. sp. **Reitter**, l.c. (142).
- Micipsina* n. gen. **Reitter**, l.c. (188).
- Microdera strigiventris* n. sp. Chinese Turkestan. **Reitter**, l.c. (157).
- Neoc'sha* n. subgen. (*Pachychile*). **Reitter**, E. l.c. (147).
- Neosgenz* nn. spp. **Fairmaire**, L. Paris, Ann. soc. ent., **72**, (2<sup>e</sup> semest.), 1903, (211-212).
- Oterophiloeus deflexangulus* n. sp. **Reitter**, Brunn, Verh. Natf. Ver., **39**, (1900), 1901, (82-197).
- Oxyeara deronectina* n. sp. **Reitter**, l.c. (82-197).
- Oxycarops* n. gen. **Reitter**, l.c. (82-197).
- Pachychile* nn. spp. **Reitter**, l.c. (148-152).
- Pachychilina* n. gen., *P. oxyophthalmus* n. sp. **Reitter**, l.c. (145-146).
- Parecatus dorsoplicatus* n. sp. **Fairmaire**, L. Paris, Ann. soc. ent., **72**, (2<sup>e</sup> semest), 1903, (206).
- Pentaphyllus testaceus* Hellwig, an unrecorded addition to the British Coleoptera. **Janson**, O. E. Ent. Rec., London, **15**, 1903, (128).
- Phaleria provincialis* var., *puelin* n. var. **Pic**, M. Echagne, Lyon, **17**, 1902, (64).
- Plastica* n. gen., *P. polita* n. sp. Bolivia. **Waterhouse**, C. O. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (563-564).
- Platyops* (*Eurochila*) nn. spp. Transcaspiæ. **Semenov**, A. Rev. Russ. Ent., Jaroslavl', **3**, 1903, (9-10).
- Plesiophthalmus* nn. spp. Tonkin. **Fairmaire**, L. Bruxelles, Ann. Soc. ent. Belgique, **1903**, (17).
- Prioproctus* n. gen., *P. oertzeni* n. sp. **Kolbe**, H. J. Arch. Natg., Berlin, **69**, Bd 1, 1903, (174-176).
- Prionocelis* nn. spp. **Kolbe**, H. J. l.c. (169-173).
- Pristophilus* n. gen. = *Chiroscelis passaloides* Westw. **Kolbe**, H. J. l.c. (174).

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*Antheicus jacobsoni* n. sp. Transcaspia. Pic, M. St. Petersburg, Ann. Mus. zool. Ac. Sc., 8, 1903, (88-89).

———— *patagonicus* n. sp. Patagonie. Pic, M. Echange, Lyon, 17, 1902, (49-51).

———— *peragalloi* n. sp.; *A. (Aulacoderus) sefrensis* var. *zizyphi* n. var. Pic, M. l.c. (65).

———— (*Ichyropalpus*) *tenax* n. sp., *A. (Microhoria) tumidipes* var. *jurjurenensis* n. var. Pic, M. l.c. (24).

? *Copobaenus bicolor* var. *atriceps* n. var. Pic, M. l.c. (24).

. *Formicomus* nn. spp. Inde méridionale. Pic, M. Paris, Ann. soc. Ent., 72, (2<sup>e</sup> semest.), 1903, (348-352).

———— nn. spp., *F. obscurus* var. *obscurior* n. var. Manille. Pic, M. l.c. 71, (2<sup>e</sup> semest), 1902, (643-648).

———— *albipes* n. sp. Fairmaire, l.c. 72, (2<sup>e</sup> semest.), 1903, (181-259).

———— *annamitus* n. sp. Pic, M. Echange, Lyon, 19, 1903, (107).

———— (*Antelephilus*) *ruficollis* var. *annamitus* n. var. Pic, M. Naturaliste, Paris, (sér. 1), 25, 1903, (56).

———— *thomsoni* n. sp. E. Indies. Pic, M. Bruxelles, Ann. Soc. Ent. Belgique, 45, 1901, (90).

*Hylobaenus* n. gen., *H. notaticollis* n. sp. Pic, M. Echange, Lyon, 17, 1902, (33-34).

*Hylophilus* nn. spp. Océanie. Pic, M. Paris, Bul. soc. ent., 1902, (227-228).

———— nn. spp. Pic, M. Echange, Lyon, 17, 1902, (33-34); 19, 1903, (98-99).

———— *emmerezi* n. sp., *H. raffrayi* var. *chevreuxi* n. var. Pic, M. l.c. (119).

*Hypsogenia centroasiatica* var. *obscuripes* n. var. Pic, M. l.c. (98).

*Leptaleus gayi* n. sp. Pic, M. Bul. Muséum, Paris, 1903, (20-21).

*Macratia strictula* n. sp. Fairmaire, L. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (181-259).

———— *rubroapicata* n. sp. Pic, M. Echange, Lyon, 19, 1903, (120).

———— *tecumanensis* n. sp. Pic, M. Naturaliste, Paris, (sér. 2), 25, 1903, (81).

*Mecynotarsus* nn. spp. Manille. Pic, M. Paris, Ann. soc. ent., 71, (2<sup>e</sup> semest.), 1902, (643-648).

———— *notatus* n. sp. Inde méridionale. Pic, M. l.c., 72, (2<sup>e</sup> semest.), 1903, (348-352).

*Melos trapeziderus* n. sp. Gahan, C. J. Nat. Hist. Sokotra, 2.

*Notozus dugesi* n. sp. Mexico. Pic, M. Bruxelles, Ann. Soc. Ent. Belgique, 45, 1901, (89).

———— *monoceros* L. dévastant les betteraves. Sempolowski, A. Gaz. roln., Warszawa, 43, 1903, (281-282).

———— *raddei* n. sp. Sibiria orient. (Amur). Pic, M. St. Petersburg, Ann. Mus. zool. Ac. Sc., 8, 1903, (88-89).

*Ochthenomus baeri* n. sp., var., and *O. nigrobinnurus* n. var. Manille. Pic, M. Paris, Ann. Soc. ent., 71, (2<sup>e</sup> semest.), 1902, (643-648).

*Scaptia* nn. spp. Pic, M. Echange, Lyon, 19, 1903, (119-120).

*Steriphodon indicum* n. sp. Pic, M. l.c. (120).

*Telesinus* n. gen., *T. griseus* n. sp. Madagascar. Fairmaire, L. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (181-259).

*Tomoderus arcuatoceps* n. sp. Pic, M. Naturaliste, Paris, (sér. 2), 25, 1902, (81).

———— *latipennis* n. sp. Pic, M. Bul. Muséum, Paris, 1903, (20-21).

*Trotomma* nn. spp. Pic, M. Echange, Lyon, 17, 1902, (32-33, 80).

## OEDEMERIDAE.

*Exocalopus antennalis* n. sp. New Zealand. Brown, T. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (70-71).

*Trogophloeus* nn. spp. **Bernhauer, M.**  
Wien, Verh. ZoolBot. Ges., **51**, 1901,  
(651-655).

———— *bodemeyeri* n. sp. **Bern-  
hauer, M.** *l.c.* **52**, 1902, (695-705).

———— (*Carpalimus*) *coreyus* n.  
sp. **Sahlberg, J.** Öfers. F. Vet. Soc.,  
Helsingfors, **45**, [No. 10], 1902-1903,  
(8).

———— *maritimus* n. sp. New  
Zealand. **Brown, T.** Ann. Mag. Nat.  
Hist., London, (Ser. 7), **11**, 1903, (615).

*Velleius dilatatus* F., Symbiose.  
**Scriba, E.** Insektenbörse, Leipzig, **20**,  
1903, (212).

#### TRICHOPTERYGIDAE.

**Sahlberg, J.** Demonstration einer  
Sammlung von Ingenieur Isaac Ericson  
in Mölndal angefertigter Photographien  
sehr kleiner Coleopteren. Helsingfors,  
Comptes rendus du Congrès des Natura-  
listes et Médecins du Nord tenu à  
Helsingfors du 7 au 12 juillet 1902,  
**1903**, VI Section, (18-19).

**Jensen-Haarup, A. C.** The smallest  
beetles. (Danish) Bergen, Naturen,  
**27**, 1903, (49-53, with fig.).

#### CORYLOPHIDAE.

*Corylophodes marginicollis* Lee, early  
stages. **Morrill, A. W.** Philadelphia,  
Pa., Ent. News Acad. Nat. Sci., **4**, 1903,  
(135-138, with pl.).

#### SCAPHIDIIDAE.

*Scaphisoma* nn. spp. Australia.  
**Blackburn, T.** Adelaide, S. Aust., Trans.  
R. Soc., **27**, 1903, (98-99).

*Sciathophes* n. gen., *S. latens* n. sp.  
Australia. **Blackburn, T.** *l.c.* (100).

#### HISTERIDAE.

##### GENERAL.

**Lewis, G.** On new species of *Histe-  
ridae* and notices of others. Ann. Mag.  
Nat. Hist., London, (Ser. 7), **12**, 1903,  
(417-429).

##### SPECIAL.

*Acritus nigricornis* E. H. **Gerhardt,  
J.** D. ent. Zs., Berlin, **1903**, (239-  
240).

*Althanus* n. gen., *A. teretrioides* n. sp.  
**Lewis, G.** Ann. Mag. Nat. Hist., Lon-  
don, (Ser. 7), **12**, 1903, (420-421).

*Carcinops*, synoptische Tabelle der  
Arten. **Osiki, E.** Állatt. Közlem., Buda-  
pest, **2**, 1903, (127).

*Chlamydopsis* Westwood, type *C.*  
*striatella*. **Lewis, G.** Ann. Mag. Nat.  
Hist., London, (Ser. 7), **12**, 1903, (428).

*Dendrophilus*, synoptische Tabelle der  
Arten. **Osiki, E.** Állatt. Közlem.,  
Budapest, **2**, 1903, (126-127).

*Eblisia* nn. spp. New Guinea. Su-  
matra. **Lewis, G.** Ann. Mag. Nat.  
Hist., London, (Ser. 7), **12**, 1903, (422-  
423).

*Epieus*, synoptische Tabelle der Arten.  
**Osiki, E.** Állatt. Közlem., Budapest.,  
**2**, 1903, (126).

*Eutidium* n. gen., *E. pacale* n. sp.  
**Lewis, G.** Ann. Mag. Nat. Hist., Lon-  
don, (Ser. 7), **12**, 1903, (419).

*Hetaerius ferrugineus*, Beschreibung.  
**Osiki, E.** Állatt. Közlem., Budapest,  
**2**, 1903, (127-128).

———— *tristriatus*. **Brues, C. T.**  
Philadelphia, Pa., Ent. News Acad. Nat.  
Sci., **14**, 1903, (147-149, with fig. in  
text).

*Hister*, synoptische Tabelle der Arten.  
**Osiki, E.** Állatt. Közlem., Budapest, **2**,  
1903, (119-126).

———— nn. spp. **Lewis, G.** Ann.  
Mag. Nat. Hist., London, (Ser. 7), **12**,  
1903, (423-425).

———— *silantjevi* n. sp. Russie  
méridionale. **Štrijajev, N.** Rev. Russ.  
Ent., Jaroslavl, **3**, 1903, (16).

*Holopolta plana*, Beschreibung. **Osiki,  
E.** Állatt. Közlem., Budapest, **2**, 1903,  
(117).

*Hypocaccus* nn. spp. Australia.  
**Blackburn, T.** Adelaide, S. Aust., Trans.  
R. Soc., **27**, 1903, (108).

*Niponius canalicollis* Lewis, United  
Provinces and N. W. Himalayas, pre-  
daceous upon *Tomicus* sp. *Polygraphus*  
*major* and *P. minor*; description, life

history, relations to the forest. **Stebbing**, F. P. Departmental Notes on Insects that affect Forestry. No. 2. Calcutta, 1903, (248, pl. XIII, fig. 6).

*Notodoma orientale* n. sp. Birma. **Lewis**, G. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (425-426).

*Notolister sanguinosus* n. sp. Madagascar. **Fairmaire**, L. Naturaliste, Paris, (sér. 2), 23, 1903, (9).

*Orectocaelis* n. gen., *O. humeralis* n. sp. Queensland. **Lewis**, G. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (426-427).

*Orphinium* n. gen. **Lewis**, G. l.c. (419).

*Paromalus*, synoptische Tabelle der Arten. **Csikl**, E. Állatt. Közlem., Budapest, 2, 1903, (127).

— nn. spp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., 27, 1903, (103).

*Petalosoma* n. gen. **Lewis**, G. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (418-419).

*Platysoma*, synoptische Tabelle der Arten. **Csikl**, E. Állatt. Közlem., Budapest, 2, 1903, (118-119).

*Saprinus* nn. spp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., 27, 1903, (106-107).

— *pygidialis* n. sp. **Lewis**, G. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (428-429).

*Satrapes sartorii*, Beschreibung. **Csikl**, E. Állatt. Közlem., Budapest, 2, 1903, (128).

*Teretriosoma* nn. spp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., 27, 1902, (110-111).

*Teretrius doddi* n. sp. Australia. **Blackburn**, T. l.c. (109).

*Tribalus*, synoptische Tabelle der Arten. **Csikl**, E. Állatt. Közlem., Budapest, 2, 1903, (126).

## PHALACRIDAE.

*Litocerus maritimus* n. sp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., 27, 1903, (111).

## NITIDULIDAE.

*Aethina* nn. spp. Inde septentrionale. **Grouvelle**, A. Paris, Ann. soc. ent., 72, 1903, (115-118).

*Carpophilus melanopterus*, parasitism, color. **Murtfeldt**, M. E. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 14, 1903, (293-295).

— *oblongopunctatus* n. sp. Inde septentrionale. **Grouvelle**, A. Paris, Ann. soc. ent., 82, 1903, (108).

— *vitraci* n. sp. Guadeloupe. **Grouvelle**, A. l.c. 71, (2<sup>e</sup> semest.), 1902, [1903], (756-769).

*Cryptarcha* nn. spp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., 27, 1903, (116-117).

— *lesnei* n. sp. Inde septentrionale. **Grouvelle**, A. Paris, Ann. soc. ent., 72, 1902, (118).

*Epuraea* nn. spp. Inde septentrionale. **Grouvelle**, A. l.c. (109-111).

*Europs* nn. spp. Guadeloupe. **Grouvelle**, A. l.c. 71, (2<sup>e</sup> semest.), 1902, [1903], (756-769).

— nn. spp. Inde septentrionale. **Grouvelle**, A. l.c. 72, 1902, (123-124).

*Haptoneura* nn. spp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., 27, 1903, (112).

*Heterelus kraatzii* n. sp. Inde septentrionale. **Grouvelle**, A. Paris, Ann. soc. ent., 72, 1903, (108).

*Macrostola straminea* var. *vitraci* n. var. Guadeloupe. **Grouvelle**, A. l.c. 71, (2<sup>e</sup> semest.), 1902, [1903], (756-759).

*Meligethes anatolicus* n. sp. Konia. **Schilsky**, J. Küster, die Käfer Europas, 40, (94).

— (*Odontogethes*) *castanescens* n. sp. Inde septentrionale. **Grouvelle**, A. Paris, Ann. soc. ent., 72, 1903, (114).

— *circularis* n. sp. Siberia. **Sahlberg**, J. Öfvers. F. Vet. Soc., Helsingfors, 45, [No. 10], 1902-1903, (18).

— *rubricollis* n. sp. Inde. **Grouvelle**, A. Paris, Ann. soc. ent., 72, 1903, (125).

*Omosiphora sibirica* n. sp. **Sahlberg**, J. Öfvers. F. Vet. Soc., Helsingfors, 45, [No. 10], 1902-1903, 17.



*Omosita co'on*, Larve und Puppe. **Eichelbaum**, F. All. Zs. Ent., Neudamm, 8, 1903, (81-87).

——— *discoidea* Er., new for Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., 27, 1903, (261-309).

——— *ornata* n. sp. Inde septentrionale. **Grouvelle**, A. Paris, Ann. soc. ent., 72, 1903, (12).

*Pallodes* nn. spp. Inde septentrionale. **Grouvelle**, A. l.c. (117).

*Pocadius harmani* n. sp. Inde septentrionale. **Grouvelle**, A. l.c. (114).

*Pseudocamptodes blackburni* n. sp. **Grouvelle**, A. Bruxelles, Ann. Soc. ent. Belgique, 45, 1902, (184).

——— *montanus* n. sp. Inde. **Grouvelle**, A. Paris, Ann. Soc. ent., 72, 1903, (126).

*Soronia* nn. spp. Inde septentrionale. **Grouvelle**, A. l.c. (113).

——— *elongata* n. sp. **Cameron**, M. Ent. Mag., London, 39, 1903, (97-98).

## TROGOSITIDAE.

*Thymalus marginicollis*, metamorphosis. **Breed**, R. S. Cambridge, Mass., Bull. Mus. Comp. Zool. Harvard Coll., 40, 1903, (317-332, with pl.); (Cambridge, Mass., Cont. Zool. Lab. Mus. Comp. Zool. Harvard Coll., No. 145). Separate. 24.5 cm.

## COLYDIIDAE.

### GENERAL.

**Wasmann**, E. Gattungstabelle der *Cossyphodidae*. Wien, Ann. NatHist. Hofmus., 16, 1901, (95-96).

### SPECIAL.

*Ablabus blackburni* n. sp. **Grouvelle**, A. Bruxelles, Ann. Soc. ent. Belgique, 45, 1902, (184).

*Bothrideres picipes* n. sp. New Zealand. **Brown**, T. Ann. Mag. Nat. Hist., London, (Ser. 7), 11, 1903, (618).

*Catolacmus multimaculatus* n. sp. Guadeloupe. **Grouvelle**, A. Paris, Ann. Soc. ent., 71, (2<sup>e</sup> semest.), 1902, [1903], (756-769).

*Cerylon alienigenum* n. sp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., 27, 1903, (91-182).

——— *hirtum* n. sp. **Grouvelle**, A. Bruxelles, Ann. Soc. Ent. Belgique, 45, 1902, (186).

——— *humidus* n. sp. Inde septentrionale. **Grouvelle**, A. Paris, Ann. soc. ent., 72, 1903, (121-124).

*Colytodes bostrychoides* n. sp. Guadeloupe. **Grouvelle**, A. l.c. 71, (2<sup>e</sup> semest.), 1902, [1903], (756-769).

*Cossyphodites* n. gen. for *Cossyphodites woodrooffei* (Pér.) Brauna. **Brauns**, H. Wien, Ann. NatHist. Hofmus., 16, 1901, (91-94).

*Deretaphrus* nn. spp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., 27, 1903, (122-128).

*Labromimus harmandi* n. sp. Inde septentrionale. **Grouvelle**, A. Paris, Ann. soc. ent., 72, 1903, (120).

*Lemnis therminieri* n. sp. Guadeloupe. **Grouvelle**, A. l.c. 71, (2<sup>e</sup> semest.), 1902, [1903], (756-769).

*Metopistes indicus* n. sp. l'Inde. **Grouvelle**, A. l.c. 72, 1903, (126).

*Microtonus montanus* n. sp. Inde septentrionale. **Grouvelle**, A. l.c. (121).

*Neotrichus guadalupensis* n. sp. Guadeloupe. **Grouvelle**, A. l.c. 71, (2<sup>e</sup> semest.), 1902, [1903], (756-769).

*Philothermus guadalupensis* n. sp. Guadeloupe. **Grouvelle**, A. l.c. (756-769).

*Phormesa carpentaria* n. sp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., 27, 1903, (118).

*Pseudeba* n. gen., *P. novici* n. sp. Australia. **Blackburn**, T. l.c. (119-120).

*Pubala* n. gen., *P. squamifera* n. sp. **Grouvelle**, A. Bruxelles, Ann. Soc. ent. Belgique, 45, 1902, (184-185).

*Pycnomerus* nn. spp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., 27, 1903, (131-132).

——— *nitiventris* n. sp. New Zealand. **Brown**, T. Ann. Mag. Nat.

Hist., London, (Ser. 7), **11**, 1903, (617-618).

*Tadima lateralis* n. sp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (118).

*Tarphionoma boutieri* n. sp. Inde septentrionale. **Grouvelle**, A. Paris, Ann. soc. ent., **72**, 1903, (119).

*Xylobaenus indicus* n. sp. Inde septentrionale. **Grouvelle**, A. l.c. (119).

## CUCUJIDAE.

*Cathartus* (?) *cairnensis* n. sp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (91-182).

*Crypta* nn. spp. **Fairmaire**, L. Paris, Ann. soc. ent., **72**, (2° semest.), 1903, (181-259).

*Cryptomorpha peregrina* n. sp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (153).

*Cucujus* sp. N. W. Himalayas, predaceous upon *Tomicus* sp. *Polygraphus major* and *P. minor*, *Pityogenes confusus*, *Scolytus major* and *S. minor*; description, life history, relations to the Forest. **Stebbing**, E. P. Departmental Notes on Insects that affect Forestry. No. 2, Calcutta, 1903, (249, pl. xii, fig. 7). 25 cm.

*Laemophloeus* nn. spp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (140-146, 182).

nn. spp. **Grouvelle**, A. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1902, (186-189).

*dufani* n. sp. Guadeloupe. **Grouvelle**, A. Paris, Ann. soc. ent., **71**, (2° semest.), 1902, [1903], (756-769).

*harmandi* n. sp. Inde septentrionale. **Grouvelle**, A. l.c. **72**, 1903, (122).

*Lathropus brightensis* n. sp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (147).

*costatus* n. sp. Guadeloupe. **Grouvelle**, A. Paris, Ann. soc. ent., **71**, (2° semest.), 1902, [1903], (756-769).

*Myrabolia* nn. spp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (148-149).

*Platamus dufani* n. sp. Guadeloupe. **Grouvelle**, A. Paris, Ann. soc. ent., **71**, (2° semest.), 1902, [1903], (756-769).

*Platycotylus coloratus* n. sp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (147).

*Prostomis gladiator* n. sp. Australia. **Blackburn**, T. l.c. (135).

*Psammoeus* nn. spp. Australia. **Blackburn**, T. l.c. (154-155).

*Silvanus aridulus* n. sp. Australia. **Blackburn**, T. l.c. (151).

*Telephanus guadalupensis* n. sp. Guadeloupe. **Grouvelle**, A. Paris, Ann. soc. ent., **71**, (2° semest.), 1902, [1903], (756-769).

## CRYPTOPHAGIDAE.

*Cryptophagus* nn. spp. **Sahlberg**, J. Öfvers. F. Vet. Soc., Helsingfors, **45**, [No. 10], 1902-1903, (15-16).

*nigro-apicalis* n. sp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (156).

*Hapalips guadalupensis* n. sp. Guadeloupe. **Grouvelle**, A. Paris, Ann. soc. ent., **71**, (2° semest.), 1902, [1903], (756-769).

*Loberus citraci* n. sp. Guadeloupe. **Grouvelle**, A. l.c. (756-769).

*Pharaxonota indica* n. sp. Inde. **Grouvelle**, A. l.c. **72**, 1903, (127).

*Telmatophilus sublaevis* n. sp. Australia. **Blackburn**, T. Adelaide, S. Aust., Trans. R. Soc., **27**, 1903, (158).

*Tomarops* n. gen., *T. punctatus* n. sp. Inde méridionale. **Grouvelle**, A. Paris, Ann. soc. ent., (2° semest.), 1903, (343).

## THORICTIDAE.

*Thorictus foreli*, Symbiose. **Kolbe**, H. J. Berlin, Sitzber. Ges. natf. Freunde, **1903**, (237-253).

*kaznakovi* n. sp. Ost-Buchara. **Schmidt**, R. H. St. Petersburg, Ann. Mus. zool. Ac. Sc., **8**, 1903, (389-391).

*Thorictus ruzskii* n. sp. Transcaspia.  
Semenov, A. P. Rev. Russ. Ent.,  
Jaroslavl, 3, 1903, (353-357).

## EROTYLIDAE.

### GENERAL.

**Xambou.** Mœurs et métamorphoses des  
coléoptères appartenant au groupe des  
Erotylides. Naturaliste, Paris, (sér. 2),  
25, 1903, (91-92, 407).

### SPECIAL.

*Helota pauli* n. sp. Weise, J. D.  
ent. Zs., Berlin, 1903, (171).

*Titubaea peyerimhoffi* n. var. (var. de  
13 punctata Desh.?) Pic, M. Echange,  
Lyon, 17, 1902, (48).

## MYCETOPHAGIDAE.

*Berginus ritraci* n. sp. Guadeloupe.  
Grouvelle, A. Paris, Ann. soc. ent., 71,  
(2<sup>e</sup> semest.), 1902, (1903), (756-769).

*Diphyllus maindroni* n. sp. Inde  
méridionale. Grouvelle, A. l.c. 72,  
(2<sup>e</sup> semest.), 1903, (342).

———— *ornatellus* n. sp. Austra-  
lia. Blackburn, T. Adelaide, S. Aust.,  
Trans. R. Soc., 27, 1903, (91-182).

*Diplocoelus opacior* n. sp. Australia.  
Blackburn, T. l.c. (158).

## COCCINELLIDAE.

### GENERAL.

**Bowditch,** F. C. Notes on Casey's  
revision of the American Coccinellidae.  
Philadelphia, Pa., Ent. News Acad. Nat.  
Sci., 13, 1902, (205-207).

**Burgess,** A. F. Economic notes on  
the family Coccinellidae. Washington,  
D.C., Bull. U.S. Dept. Agric., Div. Ent.,  
No. 40, 1903, (25-32).

**Leng,** C. W. Notes on Coccinellidae.  
New York, N.Y., J. Ent. Soc., 11, 1903,  
(35-45, with pl.).

———— Coccinellidae, notes. l.c.  
(193-213, with 2 pls.).

**Leonhardt,** W. Ueber das massen-  
hafte Auftreten von Coccinelliden im

Alten Lande im Winter 1901-02. Aus  
d. Heimat, Bremerhaven, 1901-02, 1903,  
(53-54).

**Weise,** J. Synonymische Bemerkun-  
gen [betr. Coccinellidae]. D. ent. Zs.,  
Berlin, 1903, (424).

### SPECIAL.

*Brachycantha aperta* n. sp. Weise,  
J. D. ent. Zs., Berlin, 1903, (208).

*Chilocorus similis*, parasite of. Mar-  
latt, C. L. Washington, D.C., Proc.  
Ent. Soc., 5, 1903, (138-139).

*Cleothera staudingeri* n. sp. Weise, J.  
Bruxelles, Ann. Soc. ent. Belgique, 45,  
1901, (284).

*Coccinella* sp. United Provinces, pre-  
daceous upon *Monophlebus stebbingi*,  
description, life history, relations to the  
forest, protection, points for observation.  
Stebbing, E. P. Departmental Notes on  
Insects that affect Forestry. No. 2.  
Calcutta, 1903, (324, pl. XIX, fig. 5, a  
b, c, d). 25 cm.

———— *conglobata*, Bemerkungen  
über die ersten Entwicklungstadien.  
Weise, J. D. ent. Zs., Berlin, 1903,  
(164-166).

*Coelophora femorata* n. sp. Weise, J.  
Bruxelles, Ann. Soc. ent. Belgique, 45,  
1901, (91).

*Corystes cavifrons* n. sp. Weise, J.  
D. ent. Zs., Berlin, 1903, (208).

*Cycloneda pomacea* n. sp. Weise, J.  
l.c. (207).

*Epilachna* nn. spp. Weise, J.  
Bruxelles, Ann. Soc. ent. Belgique, 45,  
1901, (280-281); D. ent. Zs., Berlin,  
1903, (229-232).

*Epiphyllax* nn. spp. Madagascar.  
Fairmaire, L. Bruxelles, Ann. Soc. Ent.  
Belgique, 45, 1901, (339); Paris, Ann.  
soc. ent., 72, (2<sup>e</sup> semest.), 1903, (242-  
243).

*Hippodamia rickmersi* n. sp. Weise,  
J. Bruxelles, Ann. Soc. ent. Belgique,  
45, 1901, (281).

*Lithophilus minutus* n. sp., *L. cribra-  
tellus* Frm. var. *limbatus* n. var. Pic,  
M. Echange, Lyon, 19, 1903, (170).

———— *peyerimhoffi* n. sp. Pic,  
M. l.c. (89-90).

*Macrolaia* n. gen., *M. arcuata* n. sp.  
Weise, J. D. ent. Zs., Berlin, 1903,  
(230-231).

*Megilla maculata* var. *floridana* n.  
var. Long, C. W. New York, N.Y.,  
J. Ent. Soc., 11, 1903, (35-45, with pl.).

*Ortalia pectoralis* n. sp. Weise, J.  
Bruxelles, Ann. Soc. ent. Belgique, 45,  
1901, (284).

*Pelina geometrica* n. sp. Weise, J.  
l.c. (282).

*Platynaspis weyersi* n. sp. Weise, J.  
l.c. (92).

*Propiptus* n. gen., *P. subopacus* n. sp.  
Weise, J. l.c. (95-96).

*Pullus* nn. spp. Weise, J. l.c. (94).

——— *saginata* n. sp. Weise, J.  
l.c. (285-286).

*Rodolia punctigera* n. sp. Weise, J.  
l.c. (93).

*Scymnus limonii* n. sp. Isle of Wight.  
Domisthorpe, H. Ent. Rec., London, 15,  
1903, (287).

*Sidis relictus* n. sp. Weise, J.  
Bruxelles, Ann. soc. ent. Belgique, 45,  
1901, (96).

*Solanophila* nn. spp. Weise, J. l.c.  
(273-279).

*Sticholotis melanaria* n. sp. Weise, J.  
D. ent. Zs., Berlin, 1903, (232).

*Toxotoma rugulosa* n. sp. Weise, J.  
Bruxelles, Ann. Soc. ent. Belgique, 46,  
1901, (273).

*Verania bennigseni* n. sp. Weise, J.  
D. ent. Zs., Berlin, 1903, (231).

## ENDOMYCHIDAE.

*Danaë* nn. spp. Africa. Weise, J.  
D. ent. Zs., Berlin, 1903, (201-202).

*Dapsa graeca* n. sp. Pic, M. Echange  
Lyon, 17, 1903, (71-72).

——— *syriaca* n. sp. Pic, M.  
l.c. (33).

*Rhymbus* nn. spp. Weise, J. D. ent.  
Zs., Berlin, 1903, (204-206).

*Stenotarsus* nn. spp. Africa. Weise,  
J. l.c. (202-203).

(n 2-9053)

## LATHRIDIIDAE.

## GENERAL.

Belon, O. P. Fascicule 4. Coleop-  
tera clavicornia, fam. Lathridiidae. In :  
Wytman, Genera insectorum. Bruxelles  
1902, (40, av. 1 pl.). fr. 9.60.

## SPECIAL.

*Cortilena* Motsch, note sur le genre, et  
synopse de toutes les espèces actuelle-  
ment connues. Belon. Bruxelles, Ann.  
Soc. ent. Belgique, 45, 1901, (86-89).

*Enicmus anthracinus* Mnnh. sp. pr.  
Gerhardt, L. D. ent. Zs., Berlin, 1903,  
(238-239).

*Isidus letourneuxi* n. sp. Pic, M.  
Echange, Lyon, 17, 1903, (64).

## DERMESTIDAE.

*Brachysphyrus* n. gen., *B. inornatus*  
n. sp. Australia. Blackburn, T.  
Adelaide, S. Aust., Trans. R. Soc., 27,  
1903, (160).

*Cryptorhopalum* nn. spp. Australia.  
Blackburn, T. l.c. (169-170).

*Dermestes luganensis* n. sp. Stierlin,  
G. Schaffhausen, Mitt. Schweiz. Ento-  
mol. Ges., 10, 1902, (425-427).

*Hadrotoma marginata* Payk., a hatch-  
ing experiment. (Swedish) Mjöberg,  
E. Entomol. Tidskr., Stockholm, 22,  
1901, (189-190).

*Megatoma innotata* n. sp., *M. graeseri*  
Reitt var. *latenotata* n. var. Pic, M.  
Echange, Lyon, 17, 1902, (48).

*Trogoderma* nn. spp. Australia.  
Blackburn, T. Adelaide, S. Aust., Trans.  
R. Soc. 27, 1903, (163-165).

——— *aegyptiaca* n. sp. Assuan.  
Pic, M. Echange, Lyon, 17, 1901, (33).

## BYRRHIDAE.

*Curimus abbreviatus* n. sp. Sahlberg,  
J. Öfvers. F. Vet. Soc., Helsingfors,  
45, [No. 10], 1902-1903, (19).

*Microchaetes* nn. spp. Australia.  
Blackburn, T. Adelaide, S. Aust., Trans.  
R. Soc., 1903, (175-176).

*Melitonoma* nn. spp. Africa. **Jacoby**, M. Entomologist, London, **36**, 1903, (62-64, 91-92).

*Meniellus* n. gen., *M. kohlschütteri* n. sp. Afrika. **Weise**, J. Arch. Natg., Berlin, **69**, Bd. 1, 1903, (202).

*Menius* nn. spp. Cameroons. **Jacoby**, M. Stettiner ent. Ztg, **64**, 1903, (292-336).

*Meroscaelis* n. gen. verwandt mit *Thlaspidia* Weise. *M. radiata* Boh., *M. pulcherrima*, *M. selecta* nn. spp. **Spaeth**, F. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., **1**, 1903, (113-118).

*Mesomphalia nudoplagiata* n. sp. Brazil. **Spaeth**, F. Wien, Verh. Zool. Bot. Ges., **51**, 1901, (333-350).

*Mesopa* n. gen., *M. fulvipes* n. sp. India. **Jacoby**, M. Bruxelles, Ann. Soc. ent. Belgique, **47**, 1903, (112-113).

*Mesotoma* n. gen., *M. viridipennis* n. sp. Cameroons. **Jacoby**, M. Stettiner, ent. Ztg., **64**, 1903, (327-328).

*Metriana* 6-guttata Boisd., Systematisch, *M. holmgreni* Boh., System. Beschreibung, *M. diomma* Boisd., *M. circumdata* Herbst., Beschreibung; 6 nn. spp. **Spaeth**, F. Budapest, Ann. Hist.-Nat. Mus. Nat. Hung., **1**, 1903, (121-136).

*Metriopecta obscuricollis* n. sp. Madagascar. **Fairmaire**, L. Naturaliste, Paris, (sér. 2), **23**, 1903, (10).

*Micropyga* n. gen., *M. transvaalense* n. sp. Transvaal. **Jacoby**, M. Entomologist, London, **36**, 1903, (92-93).

*Mimastra costatipennis* n. sp. India. **Jacoby**, M. Bruxelles, Ann. Soc. Ent. Belgique, **47**, 1903, (123).

*Mimastracella* n. gen., *M. hirsuta* n. sp. India. **Jacoby**, M. l.c. (119-120).

*Monocida thoracica* n. sp. Natal. **Jacoby**, M. London, Trans. Ent. Soc., **1903**, (26).

*Monolepta* nn. spp. S. Africa. **Jacoby**, M. l.c. (33-34).

— nn. spp. Afrika. **Weise**, J. Arch. Natg., Berlin, **69**, Bd. 1, 1903, (211-214).

— nn. spp. India. **Jacoby**, M. Bruxelles, Ann. Soc. Ent. Belgique, **47**, 1903, (126-127).

*Monolepta* nn. spp. Cameroons. **Jacoby**, M. Stettiner Ent. Ztg, **64**, 1903, (335).

*Monozia puncticollis*, notes. **Ohlthausen**, F. H. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., No. **40**, 1903, (111-113).

*Morphosphaeroides* n. gen., *M. africana* n. sp. Cameroons. **Jacoby**, M. Stettiner ent. Ztg, **64**, 1903, (318).

*Myrcinella* n. gen., *M. minor* n. sp. Madagascar. **Jacoby**, M. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (300-301).

*Nephrella* nn. spp. India. **Jacoby**, M. l.c. **47**, 1903, (100-102).

*Nerissidius rugulosus* n. sp. Afrika. **Weise**, J. Arch. Natgr., Berlin, **69**, Bd. 1, 1903, (203).

*Nicea* nn. spp. Neu-Guinea. **Weise**, J. D. ent. Zs., Berlin, **1903**, (335-336).

*Nirionides* n. gen., *N. staudingeri*, *N. abdominalis* nn. spp. Cameroons. **Jacoby**, M. Stettiner ent. Ztg, **64**, 1903, (322-323).

*Nisotra* nn. spp. Madagascar. **Jacoby**, M. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (297).

— *dalmani* n. sp. Cameroons. **Jacoby**, M. Stettiner ent. Ztg, **64**, 1903, (306).

— *semicoerulea* n. sp. India. **Jacoby**, M. Bruxelles, Ann. Soc. ent. Belgique, **47**, 1903, (109).

*Nodostonopa* n. gen., *N. subcostata* n. sp. Madagascar, **Jacoby**, M. l.c. **45**, 1901, (293-294).

— nn. spp. **Jacoby**, M. l.c. **47**, 1903, (96-98).

*Notomela fulvofasciata* n. sp. Cameroons. **Jacoby**, M. Stettiner ent. Ztg, **64**, 1903, (308).

*Nyctiphantus* Sem. ejusque speciebus. *N. custos* n. sp. Turkestan. (Russ.) **Semenov**, A. P. St. Petersburg, Hor. Soc. Ent. Roes., **36**, 1903, (176-182).

*Odontota dorsalis*, habits, with notes on related species. **Ohlthausen**, F. H. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **33**, 1902, (70-90).

*Oedionychia nilgiriensis* n. sp. India. **Jacoby**, M. Bruxelles, Ann. Soc. ent. Belgique, **47**, 1903, (110).

- Oides* nn. spp. Cameroons. **Jacoby, M.** Stettiner ent. Ztg, **64**, 1903, (310-311).
- Orina (Chrysocloa) tristis* Fabr., var. *smaragdina* Weise. **Chapman, T. A.** Trans. Ent. Soc., London, **1903**, (245-261, pls. X, XI).
- Orthaea fulva* n. sp. India. **Jacoby, M.** Bruxelles, Ann. Soc. Ent. Belgique, **47**, 1903, (107).
- Orthaulaca limbatipennis* n. sp. **Jacoby, M.** l.c. (80-128).
- Otilea* nn. spp. Peru. **Jacoby, M.** Entomologist, London, **36**, 1903, (183, 210-211).
- Oxylepus kassmati* n. sp. **Spaeth, F.** Wien, Verh. ZoolBot. Ges., **51**, 1901, (750-756).
- Pachnephorus graecus* n. sp. Greece. **Pic, M.** Echange, Lyon, **17**, 1901, (35).
- Palaeophyla* n. gen., *P. granulosa*, *P. semiragosa* nn. spp. Natal. **Jacoby, M.** London, Trans. Ent. Soc., **1903**, (23-25).
- Pantocometis horni* n. sp. Ceylon. **Weise, J.** D. ent. Zs., Berlin, **1903**, (27).
- Parnops atriceps* n. sp. **Pic, M.** Echange, Lyon, **19**, 1903, (163).
- Paropisterna striata* n. sp. **Weise, J.** D. ent. Zs., Berlin, **1903**, (108).
- Patriasma*. **Spaeth, F.** Wien, Verh. ZoolBot. Ges., **51**, 1901, (333-350).
- Peploptera braunsi* n. sp. South Africa. **Jacoby, M.** Entomologist, London, **36**, 1903, (92).
- Pheloticus* nn. spp. Madagascar. **Jacoby, M.** Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (291-292).
- *interruptus* n. sp. Madagascar. **Fairmaire, L.** Paris, Ann. soc. ent., **72**, (2<sup>e</sup> semest.), 1903, (258).
- Philopona* n. gen., *P. tibialis*, *P. parvula* nn. spp. Afrika. **Weise, J.** Arch. Natg., Berlin, **69**, Bd. 1, 1903, (216-217).
- Phygasia basalis* n. sp. Cameroons. **Jacoby, M.** Stettiner ent. Ztg, **64**, 1903, (304).
- *violaceipennis* n. sp. **Jacoby, M.** Bruxelles, Ann. Soc. ent. Belgique, **47**, 1903, (103).
- Phyllobroticella* nn. spp. Africa. **Weise, J.** D. ent. Zs., Berlin, **1903**, (333).
- *simplicipennis* n. sp. Cameroons. **Jacoby, M.** Stettiner ent. Ztg, **64**, 1903, (334).
- Phyllotreta* nn. spp. Afrika. **Weise, J.** Arch. Natg., Berlin, **69**, Bd. 1, 1903, (217-218).
- *hispanica* n. sp. **Pic, M.** Echange, Lyon, **17**, 1903, (115).
- Physodactyla gerstaeckeri* n. sp. Cameroons. **Jacoby, M.** Stettiner ent. Ztg, **64**, 1903, (292-336).
- Physoma klugi* n. sp. Madagascar. **Jacoby, M.** Bruxelles, Ann. Soc. Ent. Belgique, **45**, 1901, (299).
- Physonychia dohrni* n. sp. Cameroons. **Jacoby, M.** Stettiner ent. Ztg, **64**, 1903, (309).
- Plagiasma* n. gen., *P. sublineata* n. sp. Afrika. **Weise, J.** Arch. Natg., Berlin, **69**, Bd. 1, 1903, (209).
- Plagiodera* nn. spp. Africa. **Weise, J.** Arch. Natg., Berlin, **69**, Bd. 1, 1903, (204-205).
- *nigrita* n. sp. Madagascar. **Jacoby, M.** Bruxelles, Ann. Soc. Ent. Belgique, **45**, 1901, (295).
- Platyzantha* nn. spp. Cameroons. **Jacoby, M.** Stettiner ent. Ztg, **64**, 1903, (328-333).
- nn. spp. Afrika. **Weise, J.** D. ent. Zs., Berlin, **1903**, (324-331).
- *varicornis* n. sp. Natal. **Jacoby, M.** London, Trans. Ent. Soc., **1903**, (33).
- Podagricia impressipennis* n. sp. Natal. **Jacoby, M.** l.c. (11-12).
- (*Nisotra*) *nigripennis* n. sp. **Jacoby, M.** Bruxelles, Ann. Soc. Ent. Belgique, **47**, 1903, (109).
- Porphyraspis* nn. spp. Columbia. **Spaeth, F.** Wien, Verh. ZoolBot. Ges., **51**, 1901, (333-350).
- Porphyrtoma* n. gen. ~ *Pachytoma*. Cameroons. **Jacoby, M.** Stettiner ent. Ztg, **64**, 1903, (319).
- Prasocuris varendorffi* n. sp. Afrika. **Weise, J.** Arch. Natg., Berlin, **69**, Bd. 1, 1903, (205).

*Proscicela* nn. spp. Peru. **Jacoby**, M. London, Proc. Zool. Soc., 1903, 2, (55).

*Pseudaphthona* n. gen., *P. humeralis* n. sp. India. **Jacoby**, M. Bruxelles, Ann. Soc. Ent. Belgique, 47, 1903, (104-105).

*Pseudocolaspis* nn. spp. Cameroons. **Jacoby**, M. Stettiner ent. Ztg, 64, 1903, (297).

*Pseudapophylla* n. gen. **Jacoby**, M. London, Trans. Ent. Soc., 1903, (23).

*Pseudocrania assimilis* n. sp. Afrika. **Weise**, J. D. ent. Zs., Berlin, 1903, (321).

*Pseudolema* n. gen., *P. saturalis* n. sp. **Jacoby**, M. Bruxelles, Ann. Soc. Ent. Belgique, 47, 1903, (82-83).

*Pseudolognatha* n. gen. type *P. immaculata* Jac., *P. salisburyensis* n. sp. Mashonaland. **Jacoby**, M. London, Trans. Ent. Soc., 1903, (31-32).

*Pseudomesomphalia* nn. spp. S. America. **Späth**, F. Wien, Verh. ZoolBot. Ges., 51, 1901, (333-350).

*Pseudoscelida* nn. spp. India. **Jacoby**, M. Bruxelles, Ann. Soc. ent. Belgique, 47, 1903, (124).

*Pseudostonopa* n. gen., *P. bicolor* n. sp. **Jacoby**, M. l.c. (98-99).

*Rhaphidopalpa africana* n. sp. E. Africa. **Weise**, J. D. ent. Zs., Berlin, 1903, (36).

*Rhembastus subaeneus* n. sp. Cameroons. **Jacoby**, M. Stettiner ent. Ztg, 64, 1903, (302).

— nn. spp. Madagascar. **Jacoby**, M. Bruxelles, Ann. Soc. ent. Belgique, 45, 1901, (290-291).

*Sardoides transvalensis* n. sp. Transvaal. **Jacoby**, M. London, Trans. Ent. Soc., 1903, (26-27).

*Sebaethe* nn. spp. India. **Jacoby**, M. Bruxelles, Ann. Soc. ent. Belgique, 47, 1903, (105-107).

— *pallidicornis* n. sp. Cameroons. **Jacoby**, M. Stettiner ent. Ztg, 64, 1903, (304).

*Sikkimia metallica* n. sp. India. **Jacoby**, M. Bruxelles, Ann. Soc. ent. Belgique, 47, 1903, (122).

*Stilodes* nn. spp. South America. **Jacoby**, M. London, Proc. Zool. Soc., 1903, 2, (47-50).

*Stratioderes minor* n. sp. Afrika. **Weise**, J. Arch. Natg., Berlin, 69, Bd. 1, 1903, (204).

*Stromatium barbatum* Fabr., from Central Provinces attacking bamboo, description, life history, relations to the forest, points for observation. **Stebbing**, E. P. Departmental notes on Insects that affect Forestry No. 2. Calcutta, 1903, (182).

*Syagrus lefevrei* n. sp. Madagascar. **Jacoby**, M. Bruxelles, Ann. Soc. ent. Belgique, 45, 1901, (289).

*Thlaspidula*. **Späth**, F. Wien, Verh. ZoolBot. Ges., 51, 1901, (333-350).

*Tituboea (Anomoea) insularis* n. sp. Trinidad. **Jacoby**, M. Entomologist, London, 36, 1903, (209-210).

*Tozaria* n. gen. Afrika. **Weise**, J. Arch. Natg., Berlin, 69, Bd. 1, 1903, (215).

*Weiseana barkeri* n. sp. Natal. **Jacoby**, M. London, Trans. Ent. Soc., 1903, (16-17).

*Zeugophora* nn. spp. **Jacoby**, M. Bruxelles, Ann. Soc. Ent. Belgique, 47, 1903, (81-82).

*Zygogramma* nn. spp. South America. **Jacoby**, M. London, Proc. Zool. Soc., 1903, 2, (55-58).

## CERAMBYCIDAE.

### GENERAL.

**Fairmaire**, L. Descriptions de quelques longicornes du Mexique. Paris, Bul. soc. ent., 1902, (243-246).

**Lameere**, A. Etude sur la phylogénie des longicornes. Bruxelles, Ann. Soc. ent. Belgique, 45, 1901, (314-323).

**Pic**, M. Diagnoses préliminaires de longicornes provenant de Chine. Echange, Lyon, 19, 1903, (105).

### SPECIAL.

*Abareus* n. gen., *A. cuneatus* n. sp. Cameroons. **Jordan**, K. Nov. Zool., Tring, 10, 1903, (185-186).

*Acanthocinus*, note. **Schaeffer**, C. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (235-237).

- Acmocera anthriboides*: *picta* n. subsp. German East Africa. **Jordan**, K. Nov. Zool., Tring, 10, 1903, (178).
- *lutosa* n. sp. W. Africa. **Jordan**, K. l.c. (195).
- Acridocephala* nn. spp. Africa. **Jordan**, K. l.c. (153-154).
- Acridocera* n. gen., *A. siczac* n. sp. Congo. **Jordan**, K. l.c. (180).
- Acridoschema atricollis* n. sp. Congo. **Jordan**, K. l.c. (178).
- *thomensis* n. sp. W. Africa. **Jordan**, K. l.c. (195).
- Adetus* nn. spp. Bolivia. **Belon**, Bruxelles, Ann. Soc. ent. Belgique, 46, 1902, (464-472).
- Aedeus marginatus* n. sp. **Fairmaire**, L. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (248).
- Agapanthia subflavida* n. sp. **Pic**, M. Echange, Lyon, 19, 1903, (163).
- Aliturus griseopubescens* n. sp. **Fairmaire**, L. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (252).
- Alphitopola* nn. spp. Africa. **Jordan**, K. Nov. Zool., Tring, 10, 1903, (160-162).
- Anaethetis* Mulsant, Die palaearktischen Vertreter; 3 nn spp. 1 n. var. Transcaspia, Altai, Amur, and Ussuri. **Baeckmann**, I. I. Rev. Russ. Ent., Jaroslavl, 3, 1903, (393-396).
- Ancylistes nigrozonatus* n. sp. **Fairmaire**, L. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (255).
- Anisogaster nigroclavatus* n. sp. **Fairmaire**, L. l.c. (251).
- Anoploclerma*, old and new species. **Lameere**, A. Bruxelles, Ann. Soc. ent. Belgique, 46, 1902, (210-212).
- Anthophilax hoffmanni* n. sp. N. Carolina. **Beutenmüller**, W. New York, N.Y., Bull. Amer. Mus. Nat. Hist., 19, 1903, (518).
- Anthribola nivigutta* a n. sp. Madagascar. **Fairmaire**, L. Naturaliste, Paris, (sér. 2), 24, 1902, (286-287).
- Aphrodisium saxosicollis* n. sp. Mexique. **Fairmaire**, L. Paris, Bul. soc. ent., 1902, (243-246).
- Apiogaster* nn. spp. Africa. **Jordan**, K. Nov. Zool., Tring, 10, 1903, (140-141).
- Arianida* n. gen., *A. mactata* n. sp. **Fairmaire**, L. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (256-257).
- Arrhythmus perrieri* n. sp. **Fairmaire**, L. l.c. (249).
- Artelida* nn. spp. Madagascar. **Fairmaire**, L. Naturaliste, Paris, (sér. 2), 24, 1902, (286-287).
- Bangalaia* nn. spp. Africa. **Jordan**, K. Nov. Zool., Tring, 10, 1903, (162-164).
- Bizadus aparus* n. sp. Cameroons. **Jordan**, K. l.c. (152).
- Brachytatus obliquepictus* n. sp. **Fairmaire**, L. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (256).
- Caenoptera marmottani* Bris., note. **Lavagne**, H. Echange, Lyon, 18, 1902, (85-86).
- Calanthemis* nn. spp. Africa. **Jordan**, K. Nov. Zool., Tring, 10, 1903, (142-143).
- Calliechroma rhodoscelis* n. sp. W. Africa. **Jordan**, K. l.c. (193).
- Callipogon (Eoxenus) relictus* Sem. ♂ nondum descriptus. (Russ.) **Semenov**, A. P. Rev. Russ. Ent., Jaroslavl, 3, 1903, (372-376, cum fig.).
- Calobrium* n. gen., *C. perrieri* n. sp. **Fairmaire**, L. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (251).
- Caloclytus syriacus* n. sp. **Pic**, M. Echange, Lyon, 17, 1902, (25).
- Cerambyx* sp. attacking blue pine and spruce, note on its occurrence and points for observation. **Stebbing**, E. P. Departmental Notes on Insects that affect Forestry, No. 2. Calcutta, 1903, (246). 25 cm.
- Chariesthes affinis* n. sp. Congo. **Jordan**, K. Nov. Zool., Tring, 10, 1903, (173).
- Chelidones africalis* n. sp. Madagascar. **Fairmaire**, L. Naturaliste, Paris, (sér. 2), 24, 1902, (280-287).
- Clytanthus* nn. spp. German East Africa. **Jordan**, K. Nov. Zool., Tring, 10, 1903, (144-145).
- Clytus popoui* Maunerk. **Suvorov**, G. L. St. Petersburg, Hor. Soc. Ent. Russ., 36, 1903, (XXXII).
- Cnemolia* n. gen., *C. mina*, *C. guttata* nn. spp. Africa. **Jordan**, K. Nov. Zool., Tring, 10, 1903, (154-155).



- Cordylomera vittata* n. sp. German East Africa. Jordan, K. l.c. (138).
- Criocephalus polonicus* Motsch., genus and species new to Britain. Ellis, W. H. Ent. Rec., London, 15, 1903, (259-261).
- Cubilia* nn. spp. Africa. Jordan, K. Nov. Zool., Tring, 10, 1903, (181-182).
- Cyclotaenia* n. gen., *C. discus* n. sp. West Africa. Jordan, K. l.c. (176-177).
- Cyrtognathus* nn. spp. Mexico. Fairmaire, L. Paris, Bul. soc. ent., 1902, (243-246).
- Derobrachus*, note. Schaeffer, C. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (235-237).
- Derolus* nn. spp. Africa. Jordan, K. Nov. Zool., Tring, 10, 1903, (136-138).
- Diadelia lateritia* n. sp. Fairmaire, L. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (255).
- Diaspila* n. gen., *D. periscelis* n. sp. West Africa. Jordan, K. Nov. Zool., Tring, 10, 1903, (192).
- Discoceps* nn. spp. Congo. Jordan, K. l.c. (179-180).
- Dolomicus* n. gen., *D. perrieri* n. sp. Fairmaire, L. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (250).
- Dorcadion abulense* n. sp. Spain. Lauffer, G. Soc. Entomol., Zürich, 17, 1902, (105).
- *brevipenne* n. sp., nn. varr. Pic, M. Echange, Lyon, 19, 1903, (170-171, 178).
- Drototelus* n. gen., *D. politus* n. sp. N. Zealand. Broun, T. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (81-82).
- Ectenessa* nn. spp. Brazil. Belon. Bruxelles, Ann. soc. ent. Belgique, 46, 1902, (13-18).
- Eunidia mimica* n. sp. Congo. Jordan, K. Nov. Zool., Tring, 10, 1903, (186).
- Exocentrus* nn. spp. Cameroons. Jordan, K. l.c. (189-190).
- Freca cincta* n. sp. West Africa. Jordan, K. l.c. (178).
- *puncticollis* n. sp. W. Africa. Jordan, K. l.c. (194).
- Glenea* nn. spp. Africa. Jordan, K. l.c. (190-191).
- *langana* n. sp. Pic, M. Echange, Lyon, 19, 1903, (107).
- Gnathoenia congoana* n. sp. Congo belge. Belon. Bruxelles, Ann. Soc. ent. Belgique, 45, 1901, (246).
- Graciella* nn. spp. Cameroons. Jordan, K. Nov. Zool., Tring, 10, 1903, (174).
- Grammoptera ingrica* Baeckmann, note supplémentaire sur la description et la distribution géographique. (Russ.) Baeckmann, I. I. St. Petersburg, Ann. Mus. zool. Ac. Sci., 8, 1903, (VIII-X).
- Hapheniastus* nn. spp. Africa. Jordan, K. Nov. Zool., Tring, 10, 1903, (174-175).
- Hippopseicon pleuricum* n. sp. Congo. Jordan, K. l.c. (186-187).
- Hybolasius* nn. spp. N. Zealand. Broun, T. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (82-85).
- Hyllisia loloa* n. sp. Cameroons. Jordan, K. Nov. Zool., Tring, 10, 1903, (187).
- Hypideres* n. gen., *H. curvinucha* n. sp. Ashanti. Jordan, K. l.c. (177-178).
- Idiocalla* n. gen., *I. postica* n. sp. German East Africa. Jordan, K. l.c. (139-140).
- Ischnia* n. gen., *I. picta* n. sp. Cameroons. Jordan, K. l.c. (184-185).
- Latisternum macropus* n. sp. Congo. Jordan, K. l.c. (155).
- Leiopus* nn. spp. Africa. Jordan, K. l.c. (188-189).
- Leptocera cyanipennis* n. sp. Madagascar. Fairmaire, L. Naturaliste, Paris, (sér. 2), 23, 1903, (36).
- Leptoeme* n. gen., *L. xantha*, *L. acme* nn. spp. Africa. Jordan, K. Nov. Zool., Tring, 10, 1903, (134-135).
- Linopodius longicollis* n. sp. Fairmaire, L. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (252).
- Lygus bicinctus* n. sp. N. Cameroons. Jordan, K. Nov. Zool., Tring, 10, 1903, (139).
- Macrochia* n. gen., *M. lutea* n. sp. Congo. Jordan, K. l.c. (176).
- Mallonia pauper* n. sp. Congo. Jordan, K. l.c. (182).

- Margites sulcifrons* n. sp. Angola. Jordan, K. l.c. (135).
- Mastodera* nn. spp. Madagascar. Fairmaire, L. Naturaliste, Paris, (sér. 2), 24, 1902, (286-287).
- Melanopolia* nn. spp. Africa. Jordan, K. Nov. Zool., Tring, 10, (151-152).
- Micurus obliquatus* n. sp. Fairmaire, L. Paris, Ann. soc. ent., 72, (2° semest.), 1903, (181-259).
- Miocris* n. gen., *M. nigroscutatus* n. sp. Mexique. Fairmaire, L. Paris, Bul. soc. ent., 1902, (243-246).
- Monochamus* nn. spp. Africa. Jordan, K. Nov. Zool., Tring, 10, 1903, (145-149).
- *thomensis* n. sp. W. Africa. Jordan, K. l.c. (193-194).
- Musius fuscicornis* n. sp. Fairmaire, L. Paris, Ann. soc. ent., 72, (2° semest.), 1903, (249).
- Nitocris* nn. spp. Africa. Jordan, K. Nov. Zool., Tring, 10, 1903, (191).
- Nyctopais tripuncta* n. sp. Cameroons. Jordan, K. l.c. (170-171).
- Oberea linearis*, Lebensgeschichte. Nielsen, J. C. Zool. Jahrb., Jena, Abt. f. Syst., 18, 1903, (659-664, mit 1 Taf.).
- Obriacum gazella* n. sp. German East Africa. Jordan, K. Nov. Zool., Tring, 10, 1903, (138-139).
- Oeaz* nn. spp. Congo. Jordan, K. l.c. (156-157).
- Oncideres eladeni* n. sp. Brazil. Gahan, C. J. and Arrow, G. T. London, Proc. Zool. Soc., 1903, 2, (254, pl. XXVIII, fig. 9).
- Opasmates piceomitens* n. sp. Madagascar. Fairmaire, L. Naturaliste, Paris, (sér. 2), 23, 1903, (10).
- Ozyeaula* n. gen., *O. verruca* n. sp. Africa. Jordan, K. Nov. Zool., Tring, 10, 1903, (133).
- Ozyhammus* nn. spp. Africa. Jordan, K. l.c. (150-151).
- Pachycytes* n. gen., *P. rufocostatus* n. sp. Fairmaire, L. Paris, Ann. soc. ent., 72, (2° semest.), 1903, (253).
- Pachystola trituberculata thomensis* n. sp. W. Africa. Jordan, K. Nov. Zool., Tring, 10, 1903, (194).
- Paralocus brevipennis* n. sp. Fairmaire, L. Paris, Ann. soc. ent., 72, (2° semest.), 1903, (249).
- Parandra* nn. spp. Lameere, A. Bruxelles, Ann. soc. ent. Belgique, 46, 1902, (69-100).
- Paratoxotus inexpectatus* n. sp. Madagascar. Fairmaire, L. Naturaliste, Paris, (sér. 2), 23, 1903, (10).
- Parocaz* n. gen. Africa. Jordan, K. Nov. Zool., Tring, 10, 1903, (157).
- Paroeme* nn. spp. Africa. Jordan, K. l.c. (134).
- Phloeus* n. gen., *P. brevis* n. sp. Sierra Leone. Jordan, K. l.c. (157).
- Phrynetia crassa* n. sp. Congo. Jordan, K. l.c. (175-176).
- Phymasterna annulata* n. sp. Madagascar. Fairmaire, L. Naturaliste, Paris, (sér. 2), 23, 1903, (10).
- Pidonia suvorovi* n. sp. Amur-Gebiet. Baekmann, I. I. Rev. Russ. Ent., Jaroslavl, 3, 1903, (115-116).
- Pinacosterna* nn. spp. Africa. Jordan, K. Nov. Zool., Tring, 10, 1903, (164-165).
- Plagiomus* nn. spp. Africa. Jordan, K. l.c. (171).
- Planodema unicolor* n. sp. Congo. Jordan, K. l.c. (183).
- Plectonarthron microps* n. sp. W. Africa. Jordan, K. l.c. (194).
- Poimenesperus callimus* n. sp. Congo. Jordan, K. l.c. (168-170).
- Polyarthron (Pogonarthron) tschitscherini* Sem., notice. (Russ.) Semenov, A. P. Rev. Russ. Ent., Jaroslavl, 3, 1903, (203-204).
- Polyrrhaphis africanus* n. sp. Congo. Jordan, K. Nov. Zool., Tring, 10, 1903, (187).
- Praonetha apicata* n. sp. Fairmaire, L. Paris, Ann. soc. ent., 72, (2° semest.), 1903, (254).
- Prosopocera* nn. spp. Africa. Jordan, K. Nov. Zool., Tring, 10, 1903, (158-159).
- Purpuricenys budensis* nn. varr. Pic, T. Echange, Lyon, 17, 1902, (27).
- *zarudnianus* n. sp. Persia austro-orientali. Semenov, A. P. Rev. Russ. Ent., Jaroslavl, 3, 1903, (358-359).

*Rhamnusium anatolicum* Pic var. *obscuriceps* n. var. Pic, M. Echange, Lyon, 19, 1903, (163).

*Saperda hornii* n. sp. Joutel, L. H. Philadelphia, Pa., Ent. News Acad. Nat. Sci., 13, 1902, (33-34, with pl.).

*Saphanidus* nn. spp. Africa. Jordan, K. Nov. Zool., Tring, 10, 1903, (131-133).

*Sobarus vethi* n. sp. Central-Afrika. Room, G. van. 's Gravenhage, Tijdschr. Ent., 45, 1903, (243-245, mit 1 Fig.).

*Sphaerion sladeni* n. sp. Brazil. Gahan, C. T. and Arrow, G. T. London, Proc. Zool. Soc., 1903, 2, (253-254, pl. XXVIII, fig. 7).

*Spilotragus* n. gen., *S. zanthus* n. sp. Nyassaland. Jordan, K. Nov. Zool., Tring, 10, 1903, (173).

*Sternotomis* nn. spp. Africa. Jordan, K. l.c. (165-166).

*Strangalia quadrizona* n. sp. Mexique. Fairmaire, L. Paris, Bul. soc. ent., 1902, (243-246).

*Sybrinus simonyi* n. sp. Gahan, C. T. Nat. Hist., Sokotra, (287).

*Sympiezocera laurasi* Lucas. Glard, A. Feuille jeunes natural., Paris, (sér. 4), 33, 1903, (203).

*Syndere* nn. spp. Africa. Jordan, K. Nov. Zool., Tring, 10, 1903, (140).

*Tetraulax* n. gen., *T. lateralis* n. sp. Congo. Jordan, K. l.c. (182-183).

*Tetropium castaneum* L., new to Britain. Bouakell, F. Ent. Mag., London, 39, 1903, (288).

——— *fuscum* Fabr., a genus and species of Longicorn Coleoptera new to Britain. Sharp, D. l.c. (198-199).

*Tetrops* Steph., Art vom Issyk-Kul-See. Baeckmann, I. I. Rev. Russ. Ent., Jaroslavl, 3, 1903, (311-312).

*Theocris* nn. spp. Congo. Jordan, K. Nov. Zool., Tring, 10, 1903, (184).

*Tragicoschema venus* n. sp. British East Africa. Jordan, K. l.c. (172).

*Tragocephala* nn. spp. Africa. Jordan, K. l.c. (166-168).

——— *biplagiata* n. sp. Fairmaire, L. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (253).

*Trichodes (Clerus) apiarius* L., *T. alvearius* Fabr. Pic, M. Echange, Lyon, 17, 1902, (61-62).

*Trichophorus electus* n. sp. Brazil. Gahan, C. T. and Arrow, G. T. London, Proc. Zool. Soc., 1903, 2, (254, pl. XXVIII, fig. 8).

*Xylotoles* nn. spp. Chatham Islands. Sharp, D. Ent. Mag., London, 39, 1903, (109-110).

*Xylotrechus aedon* n. sp. W. Africa. Jordan, K. Nov. Zool., Tring, 10, 1903, (193).

——— *fragilis* n. sp. North Cameroons. Jordan, K. l.c. (143-144).

*Xystrocera interrupta* n. sp. W. Africa. Jordan, K. l.c. (192-193).

——— *pulchra* n. sp. Congo. Jordan, K. l.c. (135).

*Zographus balteatus* n. sp. British East Africa. Heath, E. A. Entomologist, London, 36, 1903, (273-274).

*Zorion opacum* n. sp. Chatham Islands. Sharp, D. Ent. Mag., London, 39, 1903, (109).

## ANTHRIBIDAE.

*Acorynus* nn. spp. Jordan, K. Nov. Zool., Tring, 10, 1903, (420-424).

*Apatenia* nn. spp. Jordan, K. l.c. (417-420).

*Aulodina* n. gen., *A. unicolor* n. sp. Jordan, K. l.c. (128).

*Basitropis* nn. spp. Jordan, K. l.c. (431-434).

*Decataphanes posticatus* n. sp. Congo. Jordan, K. l.c. (127).

*Derographium* n. gen., *D. fulvum* n. sp. Sierra Leone. Jordan, K. l.c. (129).

*Gulamentus fasciatus* n. sp. Congo. Jordan, K. l.c. (130).

*Habrisseus* nn. spp. Jordan, K. l.c. (420).

*Haplocnema (Mesosa) curculionoides* L. var. *biboculata* n. var. Nicholas, A. Echange, Lyon, 17, 1902, (28).

*Hucus* nn. spp. Jordan, K. Nov. Zool., Tring, 10, 1903, (426-427).

*Litocerus* nn. spp. Congo. Jordan, K. l.c. (130).

— nn. spp. Jordan, K. l.c. (424-426).

*Mecocerina* nn. spp. Jordan, K. l.c. (427).

*Mecoceris clathratus* n. sp. Congo. Jordan, K. l.c. (127-128).

*Mecotropis* nn. spp. Malay Archipelago. Jordan, K. l.c. (415).

*Messalius* n. gen., *M. albidosparsus* n. sp. Fairmaire, L. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (247).

*Mucronianus* (?) *khasianus* n. sp. Assam. Jordan, K. Nov. Zool., Tring, 10, 1903, (427-428).

*Phloeotragus longicollis* n. sp. German East Africa. Jordan, K. l.c. (127).

*Protomerus* n. gen., *P. longitarsis* n. sp. Fairmaire, L. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1901, (181-259).

*Rawasia* nn. spp. Congo. Jordan, K. Nov. Zool., Tring, 10, 1903, (128-129).

*Sintor*, nn. spp. Jordan, K. l.c. (415-417).

*Xenocerus* nn. spp. Jordan, K. l.c. (428-431).

## CURCULIONIDAE.

### GENERAL.

Desbrochers des Loges. Description d'un Curculionide nouveau formant une coupe générique nouvelle. Echange, Lyon, 19, 1903, (188).

Fairmaire, L. Matériaux pour la faune coléoptérique de la région malgache: *Curculionidae*. Bruxelles, Ann. Soc. ent. Belgique, 45, 1901, (209-244).

Lea, A. M. Revision of the Australian *Curculionidae*. Part. VI. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, 28, 1903, (643-679).

Pic, Maurice. Notes et diagnoses sur divers Tichyini. Autun, Bul. soc. sci. nat., 15, 1902, (Proc. verb. 139-148).

Schultze, A. Zum Verzeichniss der paläarktischen Ceuthorrhynchinen. (D. ent. Zs., Berlin, 1902, 205-226). D. ent. Zs., Berlin, 1903, (287-291).

Schultze, A. Zusammenstellung einer Varietäten-Reihe paläarktischer Ceuthorrhynchinen. D. ent. Zs., Berlin, 1903, (292-294, 424).

### SPECIAL.

*Achia* n. gen., *A. rhombifera*, *A. adusta*, *A. discifera* nn. spp. America. Champion, G. C. Biol. Centr.-Amer., London, 1903, IV, pt. 4, (149-150).

*Adisius* n. gen., *A. rufinus*, *A. piceolus*, *A. perrieri* nn. spp. Fairmaire, L. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (230-231).

*Aleides biornatus* n. sp. Fairmaire, L. l.c. (231).

*Aldonus chathamensis* n. sp. Chatham Islands. Sharp, D. Ent. Mag., London, 39, 1903, (110).

*Allophinus* n. gen., *A. triangulifer* n. sp. Desbrochers des Loges. Echange, Lyon, 19, 1903, (188).

*Alphitodes* n. gen., *A. indutus* n. sp. Madagascar. Fairmaire, L. Bruxelles, Ann. Soc. ent. Belgique, 45, 1901, (215).

*Alsirhinus* nn. spp. Fairmaire, L. Madagascar. l.c. (232-233).

*Anagotus pallescens* n. sp. N. Zealand. Brown, T. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (76-77).

*Anaptolus* n. gen., *A. cottae*, *A. concolorifrons* nn. spp. Madagascar. Fairmaire, L. Bruxelles, Ann. Soc. ent. Belgique, 45, 1901, (222).

*Anthonomus* nn. spp. Champion, G. C. Biol. Centr.-Amer., London, 1903, IV, pt. 4, (159-192).

— nn. spp. Pic, M. Autun, Bul. soc. sci. nat., 15, 1902, (139-148).

— *strandii* n. sp. Norway. Stierlin, G. Schaffhausen, Mitt. Schweiz. Entomol. Ges., 10, 1903, (484).

*Antillia* n. gen., *A. horridipes* n. sp. Deutsch Neu-Guinea. Heller, K. M. D. ent. Zs., Berlin, 1903, (309-310).

*Aphela pictipes* n. sp. N. Zealand. Brown, T. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (75-76).

*Aphiocephalus planicollis* n. sp. Madagascar. Fairmaire, L. Bruxelles, Ann. Soc. Ent. Belgique, 45, 1901, (240).

*Apion*, Herbst., danish species of the genus. (Danish) Engelhardt, C. Kjöbenhavn, Ent. Medd., (Ser. 2), 2, 1903, (115-179).

—— *psi* Fab. Clermont, J. A. Exchange, Lyon, 17, 1902, (83).

*Apoderus coeruleipennis* n. sp. N. China. Schilsky, J. Küster, Die Käfer Europas, 40, (75).

—— *incana* MS., N. W. India, attacking *Quercus incana* and *Q. dilatata*, description, life history, relations to the forest, protection and remedies, points for observation. Stebbing, E. P. Departmental Notes on Insects that affect Forestry No. 2. Calcutta, 1903, (189, pl. viii, fig. 7, a-c). 25 cm.

*Aroaphila* n. gen., *A. cyphothorax* n. sp. Papua. Heller, K. M. Dresden, Abh. zool. Mus., 10, (1902/03), Berlin, 1903, Nr. 2, (II + 20).

*Asyteta ypsilon* n. sp. Deutsch Neu-Guinea. Heller, K. M. D. ent. Zs., Berlin, 1903, (312).

*Aviranus apicatus* n. sp. Fairmaire, L. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (240).

*Axonius insignis* Pasc, description. Lea, A. M. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, 28, 1903, (657).

*Balaninus* spp., *B. tropicalis* n. sp. Panama. Champion, G. C. Biol. Centr.-Amer., London, 1903, IV, pt. 4., (279-280).

—— *turbatus* var. *anatolicus* n. var. Pic, M. Echange, Lyon, 17, 1902, (48).

*Barianus scabrosus* n. sp. Fairmaire, L. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (221).

*Baris* nn. spp. Madagascar. Fairmaire, L. Bruxelles, Ann. Soc. ent. Belgique, 45, 1901, (236-238).

—— *gudenusi* n. sp. Schultze, A. Wien, Verh. ZoolBot. Ges., 51, 1901, (212-215).

*Baryssus* n. gen., *B. callypygus* n. sp. Fairmaire, L. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (238).

*Belopaeus niger* n. sp. Brazil. Gahan, C. T. and Arrow, G. T. London, Proc. Zool. Soc., 1903, 2, (252-253, XXVIII, fig. 5).

*Belus viridimetallicus* n. sp. Papua. Heller, K. M. Dresden, Abh. zool. Mus., 10, (1902-03), Berlin, 1903, Nr. 2, (II + 20).

*Brachycyrtus* nn. spp. Madagascar. Fairmaire, L. Bruxelles, Ann. Soc. ent. Belgique, 45, 1901, (220).

*Brachyolus* nn. spp. N. Zealand. Broun, T. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (74-75).

*Brachonyx indigena* var. *obscura* (Tourn) n. var. Pic, M. Echange, Lyon, 17, 1903, (80).

*Bradybatus carbonarius* var. *apicalis* n. var. Pic, M. Autun, Bul. soc. sci. nat., 15, 1902, (139-148).

*Calendra orizae*, observations. Kunstler, J. Bordeaux, Actes soc. linn., (ser. 6), 57, 1902, (17-27).

*Camarotus* nn. spp. America. Champion, G. C. Biol. Centr.-Amer., London, 1903, IV, pt. 4, (289-290).

*Camptochirus* nn. spp. America. Champion, G. C. l.c. (218-220).

*Camptorhinus* nn. spp. Madagascar. Fairmaire, L. Bruxelles, Ann. Soc. ent. Belgique, 45, 1901, (231).

*Carterorhinus* n. gen., *C. perrieri*, *C. major* nn. spp. Madagascar. Fairmaire, L. l.c. (222-223).

*Cataphractus elongatus* n. sp. Papua. Heller, K. M. Dresden, Abh. zool. Mus., 10, (1902-03), Berlin, 1903, Nr. 2, (II + 20).

*Cecyropa* nn. spp. N. Zealand. Broun, T. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (72-73).

*Ceuthorrhynchidius* nn. spp. Schultze, A. D. ent. Zs., Berlin, 1903, (244-245).

*Ceuthorrhynchus*, orthographe du mot. Chatanay, J. Feuille jeunes natural., Paris, (ser. 4), 33, 1903, (204).

—— orthographe du mot. Fuchs, L. l.c. (224-225).

—— orthographe du mot. Guignon, J. l.c. (204-205).

—— orthographe du mot. Malinvaud, G. l.c. (204).

—— nn. spp. Russia et transcaspias. Schultze, A. St. Peterburg, Hor. Soc. Ent. Ross., 36, 1903, (65-89).

*Ceutorhynchus* nn. spp. **Schultz**, A. D. ent. Zs., Berlin, 1903, (241-286).

— *poneyi* n. sp. Roumania. **Stierlin**, G. Schaffhausen, Mitt. Schweiz. Entomol. Ges., 11, 1903, (56).

*Chalcocybebus massulei* n. sp. Papua. **Heller**, K. M. Dresden, Abh. zool. Mus., 10, (1902-03), Berlin, 1903, Nr. 2, (II + 20).

*Chazarius* n. gen., *C. inaequalis* n. sp. Madagascar. **Fairmaire**, L. Bruxelles, Ann. Soc. ent. Belgique, 45, 1901, (230).

*Chlorastus* n. gen., *C. perrieri* n. sp. Madagascar. **Fairmaire**, L. l.c. (209).

*Cholus* nn. spp. America. **Champion**, G. C. Biol. Centr.-Amer., London, 1903, IV, pt. 4, (291-310).

*Cionistes brevis* n. sp. America. **Champion**, G. C. l.c. (148-149).

*Cionopsis* n. gen., *C. palliatus* n. sp. America. **Champion**, G. C. l.c. (150-151).

*Cionus* nn. spp. **Fairmaire**, L. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (241-242).

*Coelosternus sturio* n. sp. Brazil. **Gahan**, C. J. and **Arrow**, G. J. London, Proc. Zool. Soc., 1903, 2, (252, pl. XXVIII, fig. 4).

*Corecaulus* n. gen., *C. breviceps* n. sp. **Fairmaire**, L. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (222).

*Cratopopsis* nn. sup. Madagascar. **Fairmaire**, L. Bruxelles, Ann. Soc. ent. Belgique, 45, 1901, (219).

*Critomerus* n. gen., *C. emblematicus* n. sp. **Lea**, A. M. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, 28, 1903, (663).

*Cyclobarus hipponensis* n. sp. **Pic**, M. Exchange, Lyon, 17, 1903, (33).

*Cyclopterus tunisus* n. sp. **Pic**, M. l.c. 19, 1903, (129-130).

*Cycloteres paleatus* n. sp. Madagascar. **Fairmaire**, L. Bruxelles, Ann. soc. ent. Belgique, 45, 1901, (224).

*Cyphicerus* sp. Central Provinces, attacking teak, description, life history, relations to the forest, protection and remedies points for observation. **Stebbing**, E. P. Departmental Notes on Insects that affect Forestry No. 2. Calcutta, 1903, (186, pl. viii, fig. 6). 25 cm.

*Cyphogonus* nn. spp. Madagascar. **Fairmaire**, L. Bruxelles, Ann. Soc. ent. Belgique, 45, 1901, (234-235).

*Cyrtotrachelus longipes* (Fabr.). Chit-tagong, attacking Muli bamboo, description, life history, relations to the forest, protection and remedies points for observation. **Stebbing**, E. P. Departmental Notes on Insects that affect Forestry No. 2. Calcutta, 1903, (193, pl. ix, fig. a-h). 25 cm.

*Desmidophorus* nn. spp. Madagascar. **Fairmaire**, L. Naturaliste, Paris, (sér. 2), 23, 1903, (10); Bruxelles, Ann. Soc. ent. Belgique, 45, 1901, (225-226).

— nn. spp. **Fairmaire**, L. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (232).

*Dietsia* n. gen., *D. bifasciata* n. sp. America. **Champion**, G. C. Biol. Centr.-Amer., London, 1903, IV, pt. 4, (193-194).

*Dorytomus dorsalis* Herbst. var. *basithorax* n. var. **Pic**, M. Exchange, Lyon, 17, 1901, (80).

*Drongis* n. gen., *D. perrieri* n. sp. Madagascar. **Fairmaire**, L. Bruxelles, Ann. Soc. ent. Belgique, 45, (228).

*Dryophthorus laticauda* n. sp. Madagascar. **Fairmaire**, L. l.c. (241).

*Dysopirhinus grandis* n. sp. **Lea**, A. M. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, 28, 1903, (674).

*Ectyrus* nn. spp. America. **Champion**, G. C. Biol. Centr.-Amer., London, 1903, IV, pt. 4, (221-222).

*Elleachus scanicus* var. *austriacus* n. var. **Pic**, M. Autun, Bul. soc. sci. nat., 15, 1902, (139-148).

*Eremiarhinus subalbidus* n. sp. **Pic**, M. Exchange, Lyon, 19, 1903, (130).

*Eremnus* nn. spp. Madagascar. **Fairmaire**, L. Bruxelles, Ann. Soc. ent. Belgique, 45, 1901, (223-224).

*Erethistes* nn. spp. and many old species. America. **Champion**, G. C. Biol. Centr.-Amer., London, 1903, IV, pt. 4, (311-312).

*Erodicus* nn. spp. America. **Champion**, G. C. l.c. (275-277).

*Flamingorhynchus* n. gen., *F. weiskei* n. sp. Papua. **Heller**, K. M. Dresden, Abh. zool. Mus., 10, (1902-03), Berlin, 1903, Nr. 2, (II + 20).

*Gymnetron (Aprinus) saladense* n. sp. Pic, M. Echange, Lyon, 17, 1902, (24-25).

*Gymnopholus* n. gen., *G. ueiskei* n. sp. Papus. Heller, K. M. Dresden, Abh. zool. Mus., 10, (1902-03), Berlin, 1903, Nr. 2, (II + 20).

*Hammatostylus* n. nom. for *Hammacerus* Chevr., *H. eriniger* n. sp. Nicaragua. Champion, G. C. Biol. Centr.-Amer., London, 1903, IV, pt. 4, (272).

*Helioecarus marmoratus* n. sp. Spain. Stierlin, G. Schaffhausen, Mitt. Schweiz. Entomol. Ges., 10, 1903, (483).

*Heteronius elegans* n. sp. Madagascar. Fairmaire, L. Bruxelles, Ann. Soc. Ent. Belgique, 45, 1901, (240).

*Holonychus lutosus* n. sp. Madagascar. Fairmaire, L. Naturaliste, Paris, (sér. 2), 23, 1903, (36).

*Homaeonychus* nn. spp. Fairmaire, L. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (228-229).

*Homaleptops* nn. spp. Madagascar. Fairmaire, L. Naturaliste, Paris, (sér. 2), 23, 1903, (9).

— *duplicatus* n. sp. Fairmaire, L. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (229).

*Hoplopactus lateralis* n. sp. Brazil. Sehan, C. J. and Arrow, G. T. London, Proc. Zool. Soc., 1903, 2, (251-252, pl. XXVIII, fig. 3).

*Hoplorrhinus* nn. spp. America. Champion, G. C. Biol. Centr.-Amer., London, 1903, IV, pt. 4, (278).

*Hylobius graecus* n. sp. Pic, M. Echange, Lyon, 17, 1902, (57).

— *mesopotamicus* n. sp. Pic, M. l.c. (25).

*Idermus* n. gen., *I. plagiatus* n. sp. Fairmaire, L. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (234).

*Iphisomus* nn. spp. Madagascar. Fairmaire, L. Bruxelles, Ann. Soc. ent. Belgique, 45, 1901, (226-227).

*Laemorcheates* n. gen., *L. fasciatus* n. sp. America. Champion, G. C. Biol. Centr.-Amer., London, 1903, IV, pt. 4, (201-202).

*Laemosaccus* old and new species. America. Champion, G. C. l.c. (282-288).

*Lagocaulus* n. gen., *L. femoratus* l. latifrons nn. spp. Fairmaire, L. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (223-224).

*Lioathenus* n. gen., *L. lateralis* n. sp. Madagascar. Fairmaire, L. Bruxelles, Ann. Soc. ent. Belgique, 45, 1901, (244).

*Listrorrhynchus* n. gen., *L. subnitens* n. sp. America. Champion, G. C. Biol. Centr.-Amer., London, 1903, IV, pt. 4, (193).

*Lixius iridis* Oliv., évolution et parasites. Pierre, abbé. Echange, Lyon, 19, 1903, (108-110, 116-117, 132-133, 141-144).

*Lonchophorus* nn. spp. America. Champion, G. C. Biol. Centr.-Amer., London, 1903, IV, pt. 4, (152-154).

*Ludorix bifasciatus* n. sp. Panama. Champion, G. C. l.c. (273).

*Macrobrachionyx* n. gen., *M. gonae* n. sp. Pic, M. Echange, Lyon, 17, 1902, (80-81).

*Macrorhoptus mexicanus* n. sp. America. Champion, G. C. Biol. Centr.-Amer., London, 1903, IV, pt. 4, (200).

*Magdalis aterrimus*, mœurs et métamorphoses. Xamheu. Naturaliste, Paris, (sér. 2), 24, 1902, (271-272).

*Mataxus* nn. spp. Fairmaire, L. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (235-237).

*Megamastus apicatus* n. sp. Fairmaire, L. l.c. (233).

*Mcinitinus* n. gen., *M. sulcirostris* n. sp. Fairmaire, L. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (246).

*Metialma* nn. spp. Madagascar. Fairmaire, L. Bruxelles, Ann. Soc. ent. Belgique, 45, 1901, (233-234).

*Metraniomorpha* n. gen., *M. entirely* n. sp. Lea, A. M. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, 28, 1903, (658).

*Miccotrogus* nn. spp. Pic, M. Anten. Bul. soc. sc. nat., 15, 1902, (139-148).

*Mylloecerus* nn. spp. Pic, M. Echange, Lyon, 19, 1903, (163).

— *acaciae* MS. Western India, attacking *Acacia catechu*, description, life history, relations to the forest.

*M. sp.* (footnote) attacking *Acacia catechu*, note. **Stebbing**, E. P. Departmental Notes on Insects that affect Forestry No. 2. Calcutta, 1903, (184, pl. VIII, fig. 5, 185). 25 cm.

*Minyops lacunosus* n. sp. **Sahlberg**, J. Ofvers. F. Vet. Soc., Helsingfors, 45, [No. 10], 1902-1903, (1-40).

*Mustelinus* n. gen., *M. perrieri* n. sp. Madagascar. **Fairmaire**, L. Bruxelles, Ann. Soc. Ent. Belgique, 45, 1901, (215-216).

*Nanophyes* nn. spp. Madagascar. **Fairmaire**, L. l.c. (242-243).

— nn. spp. **Fairmaire**, L. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (241).

— *duriens* Lucas, notes on the habits as observed in Central Spain, with a description of the larva and pupa by Dr. T. A. Chapman. **Champion**, G. C. London, Trans. Ent. Soc., 1903, (87-91, pl. V).

— *pallidus*, Bewegungen der Galle. **Silva Tavares**, J. da. Insectenbörse, Leipzig, 20, 1903, (60-61).

*Naupactus tuberculatus* n. sp. Paraguay. **Arrow**, G. J. London, Proc. Zool. Soc., 1903, 2, (257-258).

*Nemes* n. gen., *N. rufirostris* n. sp. N. Zealand. **Brown**, T. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (78-79).

*Neomastix* nn. spp. America. **Champion**, G. C. Biol. Centr.-Amer., London, 1903, IV, pt. 4, (199).

*Niphades* nn. spp. **Hartmann**, F. D. ent. Zs., Berlin, 1903, (109-112).

*Nosorhinus* n. gen., *N. cuneatus*, *N. gabonicus*, *N. orientalis* nn. spp. Madagascar. **Fairmaire**, L. Bruxelles, Ann. Soc. Ent. Belgique, 45, 1901, (235-237).

*Notiophilus aquaticus* L. in Galicia (Austrian Poland). **Żomnicki**, J. L. M. Kosmos, Lwów, 28, 1903, (105-114).

*Notocryptorhynchus* n. gen., *N. sinuatus* n. sp. **Lea**, A. M. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, 28, 1903, (675-676).

*Ocladius sereifociatus* n. sp. Madagascar. **Fairmaire**, L. Bruxelles, Ann. Soc. Ent. Belgique, 45, 1901, (229).

*Oliabus* n. gen., *O. grandicollis* n. sp. **Fairmaire**, L. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (244-245).

*Oopterinus* nn. spp. America. **Champion**, G. C. Biol. Centr.-Amer., London, 1903, IV, pt. 4, (268-271).

*Orphanistes eustictus* Pasc., description. **Lea**, A. M. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, 28, 1903, (678).

*Otidocephalus* old and new species. America. **Champion**, G. C. Biol. Centr.-Amer., London, 1903, IV, pt. 4, (236-266).

*Otiorrhynchus* nn. spp. **Stierlin**, G. Schaffhausen, Mitt. Schweiz. Entomol. Ges., 10, 1902, (425-427); 11, 1903, (56-57).

— *cephalonius* n. sp. **Pic**, M. Echange, Lyon, 17, 1902, (57).

— *tenebricosus*, embedded in the wall of a human intestine. **Sharp**, D. Cambridge, Proc. Phil. Soc., 12, 1903, (199, 200).

*Oxyonyx* nn. spp. **Schultze**, A. D. ent. Zs., Berlin, 1903, (241-242).

*Pachyonyx* nn. spp. Madagascar. **Fairmaire**, L. Bruxelles, Ann. Soc. ent. Belgique, 45, 1901, (231-232).

— *inaequalis* n. sp. **Fairmaire**, L. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (233).

*Pantorhytes* nn. spp. Papua. **Heller**, K. M. Dresden, Abh. zool. Mus., 10, (1902-03), Berlin, 1903, Nr. 2, (II + 20).

*Parasphenogaster* n. gen., *P. gracilicollis* n. sp. Papua. **Heller**, K. M. l.c. (II + 20).

*Paryonychus* n. gen., *P. setosulus* n. sp. **Fairmaire**, L. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (239).

*Perissops ocellatus* Redt., description. nn. spp. **Lea**, A. M. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, 28, 1903, (645-656).

*Phellocaulus* n. gen., *P. gibbicollis* n. sp. Madagascar. **Fairmaire**, L. Bruxelles, Ann. Soc. Ent. Belgique, 45, 1901, (213-214).

*Phrystanus* n. gen., *P. tribulus* n. sp. Madagascar. **Fairmaire**, L. l.c. (218-219).

*Phyllobius* nn. varr. **Pic**, M. Echange, Lyon, 17, 1902, (65).



*Phyllotroz* nn. spp. America. **Champion**, G. C. Biol. Centr.-Amer., London, 1903, IV, pt. 4, (145-146).

*Piasocaulus* n. gen., *P. nossibianus* n. sp. Madagascar. **Fairmaire**, L. Bruxelles, Ann. Soc. ent. Belgique, 45, 1901, (217-218).

*Piasorrhinus* nn. spp. America. **Champion**, G. C. Biol. Centr.-Amer., London, 1903, IV, pt. 4, (224-230).

*Pteropus dentatus* n. sp. Madagascar. **Fairmaire**, L. Bruxelles, Ann. Soc. ent. Belgique, 45, 1901, (229).

*Prionomerus* nn. spp. America. **Champion**, G. C. Biol. Centr.-Amer., London, 1903, IV, pt. 4, (214-215).

*Proictes* nn. spp. Madagascar. **Fairmaire**, L. Bruxelles, Ann. Soc. ent. Belgique, 45, 1901, (210-212).

—— *pictus* n. sp. **Fairmaire**, L. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (220).

*Proictidius* n. gen., *P. maculosus* n. sp. Madagascar. **Fairmaire**, L. Bruxelles, Ann. Soc. ent. Belgique, 45, 1901, (212-213).

*Protopulus schoenherri* Waterh., description, var. *antennarius* n. var., *P. dromedarius* Boisd., *P. cristatus* Pasc., description; *P. tectus* n. sp. **Lea**, A. M. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, 23, 1903, (645-672).

*Pseudanthonomus* nn. spp. America. **Champion**, G. C. Biol. Centr.-Amer., London, 1903, IV, pt. 4, (196-198).

*Pseudobalaminus metasternalis* n. sp. **Fairmaire**, L. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (240).

*Pseudotepperia* n. gen., *P. compta* n. sp. **Lea**, A. M. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, 23, 1903, (662).

*Queenslandica* n. gen., *Q. posticalis*, *Q. munda* nn. spp. **Lea**, A. M. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, 23, 1903, (664-666).

*Rhadinocyba* nn. spp. Papua. **Heller**, K. M. Dresden, Abh. zool. Mus., 10, (1902-03), Berlin, 1903, Nr 2, (II + 20).

*Rhinoscapa* nn. spp. Papua. **Heller**, K. M. l.c. (II + 20).

*Rhynchites betulae*. Extrait d'un travail de Hermann Muckerrmann dans Scientific american. **Lebas**, L. Nature, Paris, 30, (2<sup>e</sup> sem.), 1902, (180-183, av. fig.).

—— *praecustus* var. *pallidior* n. var. **Pic**, M. Echange, Lyon, 19, 1903, (131).

*Rhyncholus* sp. N.-W. Himalayas, attacking blue pine, spruce and deodar, description, life history, relations to the forest points for observation. **Stebbing**, E. P. Departmental notes on Insects that affect Forestry No. 2. Calcutta, 1903, (198, pl. X, figs. 1, a, b). 25 cm.

*Rhynchomys* n. gen., *R. longicornis* n. sp. **Fairmaire**, L. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (221-222).

*Rhynchophorus palmarum* and *R. cruentatus*, habits. **Chittenden**, F. H. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. 33, 1902, (23-28).

*Rhytirrhinus caroli* Frm.: *tuniscus* n. subsp. **Pic**, M. Echange, Lyon, 19, 1903, (130).

*Rosenbergia weiskei* n. sp. Papua. **Heller**, K. M. Dresden, Abh. zool. Mus., 10, (1902-03), Berlin, 1903, Nr 2, (II + 20).

*Sargon* n. gen., *S. carinatus* n. sp. N. Zealand. **Brown**, T. Ann. Mag. Nat. Hist., London, (Ser. 7), 12, 1903, (77-78).

*Saurophthalmus* n. gen., *S. oxyope* n. sp. **Fairmaire**, L. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (224).

*Scythropus variabilis* var. *logesi* n. var. **Pic**, M. Echange, Lyon, 17, 1902, (65).

*Secania* n. gen., *S. cruralis* n. sp. Madagascar. **Fairmaire**, L. Bruxelles, Ann. Soc. ent. Belgique, 45, 1901, (240-241).

—— *puncticollis* n. sp. **Fairmaire**, L. Paris, Ann. soc. ent., 72, (2<sup>e</sup> semest.), 1903, (244).

*Sibinia* nn. spp. America. **Champion**, G. C. Biol. Centr.-Amer., London, 1903, IV, pt. 4, (209-212).

—— nn. spp., n. var. **Pic**, M. Echange, Lyon, 17, 1902, (39-40).

—— nn. spp. **Pic**, M. Autun, Bul. soc. sci. nat., 15, 1902, (139-143).

*Sipalus madecassus* n. sp. **Fairmaire**, L. Paris, Ann. soc. ent., **72**, (2<sup>e</sup> semest.), 1903, (245).

*Sitaris canariensis* n. sp. Ténériffe. **Pic**, M. Echange, Lyon, **17**, 1902, (80-81).

*Sphenophorus subcostatus* n. sp. **Fairmaire**, L. Paris, Ann. soc. ent., **72**, (2<sup>e</sup> semest.), 1903, (245).

*Stenophylax* n. gen., *S. hylastoides* n. sp. **Fairmaire**, L. l.c. (243-244).

*Stephanorhynchus pygmaeus* n. sp. N. Zealand. **Brown**, T. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (80-81).

*Stigmatrachelus* nn. spp. **Fairmaire**, L. Paris, Ann. soc. ent., **72**, (2<sup>e</sup> semest.), 1903, (225-226).

*Strophosomus capitatus*, Mimikry von *Ballus depressus*. **Dahl**, F. Berlin, Sitzber. Ges. natf. Freunde, **1903**, (273-278).

*Syagrius intrudens* n. sp. Australia, **Waterhouse**, C. O. Ann. Mag. Nat. Hist., London, (Ser. 7), **11**, 1903, (229-230).

*Sympiezopus alboniger* n. sp. **Fairmaire**, L. Paris, Ann. soc. ent., **72**, (2<sup>e</sup> semest.), 1903, (233).

*Syzygops* nn. spp. **Fairmaire**, L. l.c. (219).

*Talanthia papuana* n. sp. Deutsch Neu-Guinea. **Heller**, K. M. D. ent. Zs., Berlin, **1903**, (312).

*Tanymecus* nn. spp. Madagascar. **Fairmaire**, L. Bruxelles, Ann. Soc. Ent. Belgique, **45**, 1901, (216-217).

*Taphrorhinus* n. gen., *T. brevicornis* n. sp. **Fairmaire**, L. Paris, Ann. soc. ent., **72**, (2<sup>e</sup> semest.), 1903, (181-259, 220-221).

*Tepperia* n. gen., *T. sterculiae*, *T. major* nn. spp. **Lea**, A. M. Sydney, N.S.W., Proc. Linn. Soc. N. S. Wales, **28**, 1903, (660-661).

*Teridates* n. gen., *T. seriatus*, *T. confusus* nn. spp. America. **Champion**, G. C. Biol. Centr.-Amer., London, **1903**, IV, pt. 4, (202-203).

*Terioltes* n. gen., *T. circumdatus*, *T. nigripennis* nn. spp. **Champion**, G. C. l.c. (146-147).

*Themeropsis binodosa* n. sp. America. **Champion**, G. C. l.c. (220).

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*Throgonius* n. gen., *T. paleatus* n. sp. Madagascar. **Fairmaire**, L. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (214).

*Thysanocnemis* nn. spp. America. **Champion**, G. C. Biol. Centr.-Amer., London, **1903**, IV, pt. 4, (204-208).

*Trachyphlaeus* nn. spp. **Pic**, M. Echange, Lyon, **19**, 1903, (130).

*Traphecorynus inflatus* n. sp. **Fairmaire**, L. Paris, Ann. soc. ent., **72**, (2<sup>e</sup> semest.), 1903, (232).

*Trichobaris mucorea*, economics. **Chittenden**, F. H. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. **33**, 1902, (66-70).

*Tychius* nn. spp. **Pic**, M. Autun, Bul. soc. sci. nat., **15**, 1902, (139-148).

— *modestus* Trn. var. *subinterruptus* n. var. **Pic**, M. Echange, Lyon, **17**, 1902, (80).

*Ursidius* n. gen., *U. halleicoides* n. sp. America. **Champion**, G. C. Biol. Centr.-Amer., London, **1903**, IV, pt. 4, (200-201).

*Xerostygnus* n. gen., *X. binodulus* n. sp. N. Zealand. **Brown**, T. Ann. Mag. Nat. Hist., London, (Ser. 7), **12**, 1903, (79-80).

*Zantes* nn. spp. Madagascar. **Fairmaire**, L. Bruxelles, Ann. Soc. ent. Belgique, **45**, 1901, (224-225).

## SCOLYTIDAE.

### GENERAL.

*Scolytidae*, California notes. **Kellogg**, V. L. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent., No. **40**, 1903, (83-84).

### SPECIAL.

*Cryphalus boscelliae* MS., Poona, attacking *Boscellia serrata*; *C. tectonae* MS., Berar, attacking teak; *C. morinda* MS., Punjab, attacking spruce; *C. longifolia* MS. and *C. (?) major* MS., N.W. Himalaya, attacking *Pinus longifolia*; *C. (?) deodara* MS., attacking deodar in N.W. Himalayas; descriptions, life histories, relations to the forest, protection and remedies, points for observation. **Stabbing**, E. P. Departmental Notes on Insects that affect Forestry, No. 2. Calcutta, 1903, (261, 265-267, 274, with pls.) 25 cm.

*Dendroctonus ponderosa* n. sp. **Hopkins**, A. D. Washington, D.C., Bull. U. S. Dept. Agric. Div. Ent. (N. Ser.), No. 32, 1902, (24, with pl.). 23 cm.

*Eccoptoptera sexdentata* Mots., N.W. Himalayas, attacking silver fir, description, life history, relations to the forest, protection and remedies, points for observation. **Stebbing**, E. P. Departmental Notes on Insects that affect Forestry, No. 2. Calcutta, 1903, (284, pl. xvii, fig. 5.). 25 cm.

*Hylastes* sp. N.W. Himalayas, attacking blue pine and spruce; description, life history, relations to the forest, points for observation. **Stebbing**, E. P. l.c. (201, pl. x, figs. 2, a, b.).

———— *cunicularius*, Larven. **Nichelbaum**, F. Allg. Zs. Ent., Neudamm, 8, 1903, (60-70).

*Hylesinus* (?) sp. N.W. Himalayas, attacking blue pine; description, life history, relations to the forest, points for observation. **Stebbing**, E. P. Departmental Notes on Insects that affect Forestry, No. 2. Calcutta, 1903, (258, pl. xvi, fig. 3, a, b.). 25 cm.

*Hypoborus* (?) sp., attacking deodar trees in the N.W. Himalayas; description, life history, relation to and protection from its attacks on forest trees, points for observation. **Stebbing**, E. P. l.c. (278, pl. xvii, fig. 3 a, d). 25 cm.

*Liparthrum colchicum* n. sp. Caucasus occ. (Russ.) **Semenov**, A. P. Rev. Russ. Ent., Jaroslavl, 3, 1903, (79-80).

*Phloeosinus cupressi* n. sp. **Hopkins**, A. D. Washington, D.C., Proc. Ent. Soc., 5, 1903, (135-136).

———— *transcaspicus* n. sp. Transcaspia. **Semenov**, A. P. Rev. Russ. Ent., Jaroslavl, 3, 1903, (79-80).

*Pityogenes coniferae* MS., Punjab and N.W. Himalayas, attacking blue pine, deodar and *Pinus Gerardiana*; description, life history, relations to the forest, points for observation, protection and remedies. **Stebbing**, E. P. Departmental Notes on Insects that affect Forestry, No. 2. Calcutta, 1903, (242, pl. xiii, fig. 4, a, b, c, d, f). 25 cm.

*Polygraphus major* MS., *P. minor* MS., *P. minimus* MS., attacking deodar, blue pine and spruce. *P. longifolia* MS., attacking *Pinus longifolia*; description,

life history, points for observation. **Stebbing**, E. P. l.c. (224-239, 252-255, with pls. and figs.). 25 cm.

*Scolytus carpine* Rttb., gefunden auf dem Haselnussstrauch (*Corylus avellana* L.). **Pomerancev**, D. St. Petersburg. Hor. Soc. Ent. Roes., 26, 1903, (118-124, mit Taf.).

———— *major* MS., attacking deodar, *S. minor* and *S. deodara* MS. from United Provinces and N.W. Himalayas, attacking deodar; description, life history, relations to the forest, protection, points for observation. **Stebbing**, E. P. Departmental Notes on Insects that affect Forestry, No. 2. Calcutta, 1903, (203, 267, 220). 25 cm.

*Tomiscus* sp., attacking blue pine and spruce; description, life history, relations to the forest, protection and remedies, points for observation. *T. longifolia* MS. attacking *Pinus longifolia*; description, life history, points for observation. **Stebbing**, E. P. l.c. (225, pl. xiii, f. 1 a-d, xiv, pl. xv, fig. 1, 282, pl. xvii, fig. 4). 25 cm.

———— *calligraphus* var. *occidentalis* n. var. **Hopkins**, A. D. Washington, D.C. Bull. U. S. Dept. Agric. Div. Ent., (N. Ser.), No. 32, 1902, (24, with pl.). 23 cm.

*Triplax* nn. spp. **Fairmaire**, L. Paris, Ann. soc. ent., 72, (2e semest.), 1903, (181-259).

*Xyleborus dispar*. **Cordley**, A. B. Agric. Exp. Sta., Oregon, Corvallis, Rep. 1902, (60-61).

*Xylechinus pilosus*, Larven. **Nichelbaum**, F. Allg. Zs. Ent., Neudamm, 8, 1903, (60-70).

## UNCLASSIFIED BY THE SLIP-MAKER.

*Pelochrous scutellaris* Ab. var. *floriceps* n. var. **Pic**, M. Echange, Lyon, 19, 1903, (162).

## LIST OF NEW GENERA AND SPECIES

### ABACETUS [Carabidae].

————	<i>acutangulus</i> .	<b>Cicerin</b> .	76.
————	<i>androyanus</i> .	<b>Cicerin</b> .	76.
————	<i>annamensis</i> .	<b>Cicerin</b> .	76.
————	<i>cyclomus</i> .	<b>Cicerin</b> .	76.

- ABACETUS** [Carabidae].  
 — *elegans*. Čičerin. 76.  
 — *humilis*. Čičerin. 76.  
 — *indrapoerae*. Čičerin. 76.  
 — *perrieri*. Čičerin. 76.  
 — *aetifer*. Čičerin. 76.  
 — *strigipes*. Čičerin. 76.
- ABAREUS** n. gen. [Cerambycidae]. Jordan. 218.  
 — *cuneatus*. Jordan. 218.
- ABLATUS** [Colydiidae].  
 — *blackburni*. Grouvelle. 164.
- ACERANIS** [Passalidae].  
 — *kuwertii*. Zang. 527.  
 — *tricornis*. Zang. 527.
- Achia** n. gen. [Curculionidae]. Champion. 63.  
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- ACHRANOXIA** [Scarabaeidae].  
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- ACLYPEA** [Silphidae].  
 — *sculpturata*. Grouvelle. 162.
- ACMAEODERA** [Buprestidae].  
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 — *bipunctata* var. *jaqueti* n. var. Pic. 346.  
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 — *falli* n. nom. Kerremans. 223.  
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 — *mexicana*. Kerremans. 223.  
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- ACMOCERA** [Cerambycidae].  
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- ACRIDOCEPHALA** [Cerambycidae].  
 — *pardalis*. Jordan. 218.  
 — *seriata*. Jordan. 218.
- ACRIDOCERA** n. gen. [Cerambycidae]. Jordan. 218.  
 — *ziczac*. Jordan. 218.
- ACRIDOSCHEMA** [Cerambycidae].  
 — *atricollis*. Jordan. 218.  
 — *thomensis*. Jordan. 219.
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 — *pyropyga*. Fairmaire. 128.
- AOYLOPSELAPHUS** [Pselaphidae].  
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 — *clavatus*. Raffray. 369.  
 — *crassicornis*. Raffray. 369.  
 — *madagascariensis*. Raffray. 369.
- ADAVIUS** [Tenebrionidae].  
 — *perrieri*. Fairmaire. 128.
- ADELOCERA** [Elateridae].  
 — *angustata*. Sahlberg. 387.
- ADELOSTOMA** [Tenebrionidae].  
 — *subtile*. Reitter. 375.
- ADETUS** [Cerambycidae].  
 — *abruptus*. Belon. 18.  
 — *atomarius*. Belon. 18.  
 — *guttulatus*. Belon. 18.  
 — *incomptus*. Belon. 18.  
 — *latericius*. Belon. 18.
- Adisius** n. gen. [Curculionidae]. Fairmaire. 128.  
 — *perrieri*. Fairmaire. 128.  
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 — *rufinus*. Fairmaire. 128.
- ADORETUS** [Scarabaeidae].  
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- ADRIMUS** [Carabidae].  
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- AEDEUS** [Cerambycidae].  
 — *marginatus*. Fairmaire. 128.
- AEGIDIUM** [Scarabaeidae].  
 — *vincentiae*. Arrow. 3.
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- AEOLUS** [Elateridae].  
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- AEOLUS** [Elateridae].  
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 — *punctatellus*. Régimbart. 371.
- Agrilaxia** n. gen. [Buprestidae]. Kerremans. 223.  
 — *bella*. Kerremans. 223.  
 — *gounellei*. Kerremans. 223.  
 — *lata*. Kerremans. 223.  
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- AGRYPNUS** [Elateridae].  
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- AHERMES** [Scarabaeidae].  
 — *ahngeri*. Semenov. 431.  
 — *kaznakovi*. Semenov. 433.  
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- Alasmatus** n. gen. [Psephenidae]. Raf-fray. 370.
- ALCIDES** [Curculionidae].  
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- ALDONUS** [Curculionidae].  
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- ALEOCHARA** [Staphylinidae].  
 — *gracilicornis*. Fauvel. 473.  
 — *opacicollis*. Bernhauer. 23.
- Aleucolomus** n. subgen. [Scarabaeidae].  
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- ALTURUS** [Cerambycidae].  
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- Alloctenopus** n. gen. [Carabidae]. Broun. 53.  
 — *sculpticollis*. Broun. 53.
- Alophinus** n. gen. [Curculionidae]. Des brochets des Loges. 107.  
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- Aloxomidus** n. gen. [Psephenidae]. Raf-fray. 370.  
 — *variolosus*. Raffray. 370.
- Alphitodes** n. gen. [Curculionidae].  
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 — *indutus*. Fairmaire. 132.
- ALPHITOPOLA** [Cerambycidae].  
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- Althaus** n. gen. [Histeridae]. Lewis. 258.  
 — *teretrioides*. Lewis. 258.
- Amadotrogus** n. subgen. [Scarabaeidae].  
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- AMAUURINA** [Scarabaeidae].  
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 — *felicitanus*. Reitter. 377.  
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- \_\_\_\_\_ *crenatus*. Champion. 63.
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- \_\_\_\_\_ *flavirostris*. Champion. 63.
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- \_\_\_\_\_ *grandis*. Champion. 63.
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- \_\_\_\_\_ *nodifer*. Champion. 63.
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- \_\_\_\_\_ *ocularis*. Champion. 63.
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- \_\_\_\_\_ *equamans*. Champion. 63.
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 ——— *horridipes*. Heller. 171.
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 ——— *gracilis*. Jordan. 220.  
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 ——— *planicollis*. Fairmaire. 132.
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 ——— *latecinctus*. Fairmaire. 128.  
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 ——— *saxosicollis*. Fairmaire. 129.
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 ——— *pagenstecheri*. Preiss. 367.
- APODERUS** [Curculionidae].  
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- Apopempsis** n. gen. [Cleridae]. Schenkling. 403.  
 ——— *pulchra*. Schenkling. 403.
- Aposchiza** n. gen. [Scarabaeidae]. Brenske. 50.  
 ——— *schulzi*. Brenske. 50.
- APOTERUS** [Pselaphidae].  
 ——— *lucidus*. Raffray. 370.
- APTERODEMA** [Scarabaeidae].  
 ——— *paraguayensis*. Arrow. 2.
- Apteromesus** n. gen. [Carabidae]. Sharp. 462.  
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- APTINUS** [Carabidae].  
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 ——— *patronoides*. Heller. 171.
- AROHALIUS** [Cleridae].  
 ——— *densegranatus*. Fairmaire. 127.
- ARGOPISTES** [Chrysomelidae].  
 ——— *quadrifaculatus*. Jacoby. 203.
- Arianida** n. gen. [Cerambycidae]. Fairmaire. 128.  
 ——— *mactata*. Fairmaire. 128.
- Archalius** n. gen. [Cleridae]. Fairmaire. 127.
- Archotellus** n. subgen. [Carabidae]. Kolbe. 235.
- Arianida** n. gen. [Cerambycidae]. Fairmaire. 128.
- ARISTOCHROA** [Carabidae].  
 ——— *kaznakovi*. Cicerin. 90.
- Aroaphila** n. gen. [Curculionidae]. Heller. 172.  
 ——— *cyphothorax*. Heller. 172.
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 ——— *miztum*. Bernhauer. 23.
- ARRHYTHMUS** [Cerambycidae].  
 ——— *perrieri*. Fairmaire. 128.
- ARTELIDA** [Cerambycidae].  
 ——— *gracilipes*. Fairmaire. 131.  
 ——— *remipes*. Fairmaire. 131.
- ARTICERUS** [Pselaphidae].  
 ——— *nitidicollis*. Raffray. 370.
- ASRECESTA** [Chrysomelidae].  
 ——— *dimidiaticornis*. Jacoby. 205.  
 ——— *rufo-basalis*. Jacoby. 205.  
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 ——— *aeneicollis*. Jacoby. 203.  
 ——— *ceylonica*. Weise. 507.
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 ——— *areata* var. *nigripennis* n. var. Weise. 521.  
 ——— *delitescens*. Weise. 521.  
 ——— *intricata*. Weise. 521.  
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- Atelidium** n. gen. [Carabidae]. Sharp. 462.  
 ——— *munroi*. Sharp. 462.
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 ——— *optatus*. Sharp. 462.
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 ——— *constrictus*. Sharp. 462.  
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 ——— *assamensis*. Jacoby. 203.
- AULICUS** [Cleridae].  
 ——— *saturatus*. Fairmaire. 127.
- Aulodina** n. gen. [Anthribidae]. Jordan. 217.  
 ——— *unicolor*. Jordan. 217.
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 ——— *cristatus*. Régimbart. 371.
- AVIRANUS** [Curculionidae].  
 ——— *apicatus*. Fairmaire. 128.
- BAIANINUS** [Curculionidae].  
 ——— *tropicalis*. Champion. 63.  
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- BANGALAIJA** [Cerambycidae].  
 ——— *chaerila*. Jordan. 218.  
 ——— *compta*. Jordan. 218.  
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 ——— *vittata*. Jordan. 218.
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 ——— *scabrosus*. Fairmaire. 128.
- BARIS** [Curculionidae].  
 ——— *fusciventris*. Fairmaire. 132.  
 ——— *gudenussi*. Schultze. 419.  
 ——— *perrieri*. Fairmaire. 132.  
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 ——— *tenuistriga*. Fairmaire. 132.
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 ——— *Jacoby*. 205.  
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 ——— *metallica*. Jacoby. 205.
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- Barysus** n. gen. [Curculionidae]. Fairmaire. 128.  
 ——— *callypygus*. Fairmaire. 128.
- BASITROPIS** [Anthribidae].  
 ——— *affinis*. Jordan. 220.  
 ——— *armata*. Jordan. 220.  
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 ——— *humeralis*. Jordan. 220.  
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 ——— *hirtella*. Raffray. 370.  
 ——— *latipes*. Raffray. 370.  
 ——— *megacephala*. Raffray. 370.
- BATRISOCENUS** n. gen. [Paelaphidae].  
 ——— Raffray. 370.  
 ——— *armaticornis*. Raffray. 370.  
 ——— *bironis*. Raffray. 370.  
 ——— *cavernosus*. Raffray. 370.  
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 ——— *serraticornis*. Raffray. 370.  
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- BATRISODES** [Pselaphidae].  
 ——— *horváthi*. Raffray. 370.  
 ——— *papuanus*. Raffray. 370.
- BATRISOMINA** n. gen. [Pselaphidae].  
 ——— Raffray. 369.  
 ——— *strigicollis*. Raffray. 369.
- BELOPOEUS** [Curculionidae].  
 ——— *niger*. Gahan and Arrow. 145.
- BELUS** [Curculionidae].  
 ——— *viridimetallicus*. Heller. 172.
- BEMBIDIUM** [Carabidae].  
 ——— *actuarium*. Broun. 53.  
 ——— *advena*. Sharp. 462.  
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- BERGINUS** [Mycetophagidae].  
 ——— *citraci*. Grouville. 160.
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 ——— *marmoratus*. Régimbart. 371.  
 ——— *nigropictus*. Régimbart. 372.  
 ——— *villosulus*. Régimbart. 371.  
 ——— var. *dilutus* n. var. Régimbart. 371.
- BIDESSUS** [Dytiscidae].  
 ——— *costulifer*. Régimbart. 371.  
 ——— *crassifrons*. Régimbart. 373.  
 ——— *longivittis*. Régimbart. 371.  
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- BIRONIA** n. gen. [Pselaphidae]. Raffray. 370.  
 ——— *cavernosa*. Raffray. 370.
- BIXADUS** [Cerambycidae].  
 ——— *aparus*. Jordan. 218.
- BLACKBURNIA** [Carabidae].  
 ——— *insignis* var. *kaalensis* n. var. Sharp. 462.
- BLAESIOPTHALMUS** n. nom. [Cleridae].  
 ——— Schenckling. 407.
- BLEDIUS** [Staphylinidae].  
 ——— *bosnicus*. Bernhauer. 23.  
 ——— *fischeri*. Bernhauer. 21.
- BOLAX** [Scarabaeidae].  
 ——— *oberthüri*. Ohaus. 307.
- BOLBOCERAS** [Scarabaeidae].  
 ——— *baeri*. Boucomont. 38.§  
 ——— *peruanus*. Boucomont. 38.§
- BOLITORIUS** [Staphylinidae].  
 ——— *imitator*. Luze. 265.  
 ——— *indubius*. Luze. 265.  
 ——— *puncticeps*. Luze. 265.  
 ——— *variegatus*. Bernhauer. 23.
- BOROLINUS** n. gen. [Staphylinidae]. Bernhauer. 20.  
 ——— *borneensis*. Bernhauer. 20.
- BOTHRIDERES** [Colydiidae].  
 ——— *picipes*. Broun. 53.
- BOTHRORRHINA** [Scarabaeidae].  
 ——— *nickerli*. Heller. 170.  
 ——— *rufonasota*. Fairmaire. 131.
- BRACHONYX** [Curculionidae].  
 ——— *indigena* var. *obscura* n. var. Pic. 323.
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 ——— *aperta*. Weiss. 514.
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- BRACHYCYETUS** [Curculionidae].  
 ——— *apicornis*. Fairmaire. 132.  
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 ——— *trochalis*. Raffray. 369.
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 ——— *cuprarius*. Fairmaire. 130.
- BRACHYOLUS** [Curculionidae].  
 ——— *albescens*. Broun. 53.  
 ——— *cervalis*. Broun. 53.
- BRACHYSPHYRUS** n. gen. [Dermestidae].  
 ——— Blackburn. 25.  
 ——— *inornatus*. Blackburn. 25.
- BRACHYTATUS** [Cerambycidae].  
 ——— *obliquepictus*. Fairmaire 128.

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- BRADYBATUS** [Curculionidae].  
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- BRAHMINA** [Scarabaeidae].  
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 ——— fray. 369.  
 ——— *spectralis*. Raffray. 369.
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 ——— *elongata*. Jacoby. 199.
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 ——— *cythereias*. Pic. 346.
- CACOOBIUS** [Scarabaeidae].  
 ——— *schreiberi*. Müller. 290.
- CAEDIUS** [Tenebrionidae].  
 ——— *brevis*. Fairmaire. 128.
- CALANTHEMIS** [Cerambycidae].  
 ——— *spiloderes*. Jordan. 218.  
 ——— *temera*. Jordan. 218.  
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- CALARUS** n. gen. [Pselaphidae]. Raffray.  
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 ——— *dubius*. Raffray. 370.  
 ——— *puncticeps*. Raffray. 370.  
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- CALETOR** n. nom. [Carabidae]. Čičerin.  
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- CALLIOBROMA** [Cerambycidae].  
 ——— *rhodocelis*. Jordan. 219.
- CALLIGRAPHA** [Chrysomelidae].  
 ——— *annulata*. Jacoby. 198.
- CALLISTETHUS** [Scarabaeidae].  
 ——— *pterygophorus*. Ohaus. 306.
- Callopesenius** n. gen. [Staphylinidae].  
 ——— Wasmann. 502.
- Calobrium** n. gen. [Cerambycidae].  
 ——— Fairmaire. 128.  
 ——— *perrieri*. Fairmaire. 128.
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- CALYTOPSIS** [Tenebrionidae].  
 ——— *escherichi*. Reitter. 375.
- CAMARIA** [Tenebrionidae].  
 ——— *fruhstorferi*. Fairmaire.  
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 ——— *imperialis*. Fairmaire. 133.  
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 ——— *suturalus*. Fairmaire. 128.
- CAMAROTUS** [Curculionidae].  
 ——— *dilatatus*. Champion. 63.
- CAMATOPSELAPHUS** [Pselaphidae].  
 ——— *puncticollis*. Raffray. 529.  
 ——— *singularis*. Champion. 63.
- CAMPTOCHIRUS** [Curculionidae].  
 ——— *angulatus*. Champion. 63.  
 ——— *deplanatus*. Champion. 63.  
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- CAMPTORHINUS** [Curculionidae].  
 ——— *euchromus*. Fairmaire. 132.  
 ——— *fuliginosus*. Fairmaire. 132.
- CAMPYLUS** [Elateridae].  
 ——— *acutongulus*. Sahlberg. 387.
- CANDEZEA** [Chrysomelidae].  
 ——— *acutangula*. Weise. 521.  
 ——— *braunsi*. Jacoby. 199.  
 ——— *humeralis*. Jacoby. 203.  
 ——— *nigrilabris*. Jacoby. 203.  
 ——— *infuscat*. Jacoby. 199.  
 ——— *kwaiensis*. Weise. 521.  
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- CANTHIDIUM** [Scarabaeidae].  
 — *sladeni*. Gahan and Arrow. 145.
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 — *flavosignatus*. Régimbart. 371.
- CARABUS** [Carabidae].  
 — *auronitens*: *cluniensis* n. subsp. Born. 30.  
 — *facetus*. Semenov. 448.  
 — *hemicalosoma*. Semenov. 445.  
 — *insidiosus*. Semenov. 448.  
 — *kamensis*. Semenov. 448.  
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 — *costatus*. Ritsema. 378.
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 — *murraea* var. *subobliterata* n. var. Pic. 323.  
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- CASTELNAUDIA** [Carabidae].  
 — *latipennis*. Sloane. 472.
- CATAPHRACTUS** [Curculionidae].  
 — *elongatus*. Heller. 172.
- CATHARTUS** [Cucujidae].  
 — (?) *cairnensis*. Blackburn. 25.
- CATOLAEMUS** [Colydiidae].  
 — *multimaculatus*. Grouvelle. 160.
- CATOPS** [Silphidae].  
 — *dispar*. Portevin. 363.  
 — *integer*. Portevin. 363.  
 — *ruficollis*. Portevin. 363.  
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- CAUTIRES** [Malacodermidae].  
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 ————— *languidus*. Schultz. 416,  
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- *tropicus*. Blackburn. 25.

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- *staudingeri*. Weise. 523.

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 ——— *bulbifera*. Weise. 513.  
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 ——— *bulgaricus*. Pic. 343.  
 ——— *gilvipes*. Schilsky von. 239.  
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 ——— *cordicollis*. Blackburn. 25.  
 ——— *cribriceps*. Blackburn. 25.  
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 ——— *centralis*. Fairmaire. 130.  
 ——— *dorsatus*. Fairmaire. 128.  
 ——— *floccosus*. Fairmaire. 132.  
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 ——— *scutellata*. Jacoby. 198.  
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 ——— *bituberculata*. Weise. 508.  
 ——— *caudata*. Weise. 508.  
 ——— *clavatareai*. Weise. 508.  
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 ——— *flavonigra fallax*. Weise. 508.  
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 ——— var. *quadrinaculata* n. var. Weise. 508.  
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 — *frontalis*. Weise. 521.
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 — *castaneus*. Jacoby. 205.  
 — *nigrotibialis*. Jacoby. 199.  
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 — *dunbrodyensis*. Jacoby. 199.  
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- LYCOREUS** [Elateridae].  
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 ——— *mexicanus*. Champion. 63.
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 ——— *straminea* var. *vitraci* n. var.  
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 — *primulae*. Semenov. 431.
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 — *trapeziderus*. Gahan. 144.
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 — *anita*. Reitter. 377.  
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 ——— *indicus*. Grouvelle. 162.
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 ——— *entima*. Lea. 250.
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- METROMENUS** [Carabidae].  
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 ——— *cinctus*. Sharp. 462.  
 ——— *fraudator*. Sharp. 462.  
 ——— *latifrons*. Sharp. 462.  
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 ——— *coloratus*. Blackburn. 25.  
 ——— *nigro-varius*. Blackburn. 25.  
 ——— *solidus*. Blackburn. 25.
- MICRODERA** [Tenebrionidae].  
 ——— *strigiventris*. Reitter. 375.
- MICROPLECTUS** [Pselaphidae].  
 ——— *foveiceps*. Raffray. 370.  
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 ——— *montanus*. Grouvelle. 161.
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 ——— *obliquatus*. Fairmaire. 128.
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 ——— Reitter. 377.
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 ——— *costatipennis*. Jacoby. 203.
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 ——— *lacunosus*. Sahlberg. 387.
- Miocris** n. gen. [Cerambycidae]. Fairmaire. 129.  
 ——— *nigroscutatus*. Fairmaire. 129.
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 ——— *borussus*. Jordan. 218.  
 ——— *cribellum*. Jordan. 218.  
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 ——— *homoeus*. Jordan. 218.  
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 ——— *omias*. Jordan. 218.  
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 ——— *dolosus*. Cand. i. litt. Schwarz. 425.  
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 ——— *nitidicollis*. Schwarz. 425.  
 ——— *obscurus*. Schwarz. 422.  
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 ——— *aeneipennis*. Weise. 521.  
 ——— *barombiensis*. Jacoby. 205.  
 ——— *caerulea*. Jacoby. 199.  
 ——— *centromaculata*. Jacoby. 203.  
 ——— *deleta*. Weise. 521.  
 ——— *discoidea*. Weise. 521.  
 ——— *flavilabris*. Weise. 521.  
 ——— *flaviventris*. Jacoby. 203.  
 ——— *insignis*. Weise. 521.  
 ——— *intermedia*. Weise. 521.  
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 ——— *nigricornis*. Weise. 521.  
 ——— *nigrobasisalis*. Jacoby. 203.  
 ——— *opulenta*. Jacoby. 205.  
 ——— *punctipennis*. Jacoby. 199.  
 ——— *testacea*. Weise. 521.  
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 ——— *murina*. Schilsky. 239.
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 ——— *khassianus*. Jordan. 220.
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 ——— *fusciornis*. Fairmaire. 128.
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 ——— *perrieri*. Fairmaire. 132.
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- *longicollis*. Blackburn. 25.  
 — *longicornis*. Blackburn. 25.

**MYRMEINELLA** n. gen. [Chrysomelidae].

- Jacoby. 202.  
 — *minor*. Jacoby. 202.

**MYRMECOMAEA** [Cleridae].

- *apicata*. Fairmaire. 127.  
 — *aspericollis*. Fairmaire. 127.  
 — *bigibbula*. Fairmaire. 127.  
 — *bicristata*. Fairmaire. 127.  
 — *densaticollis*. Fairmaire. 127.  
 — *fulvo-sellata*. Fairmaire. 127.  
 — *insignita*. Fairmaire. 127.  
 — *parumetriata*. Fairmaire. 127.  
 — *tenuecincta*. Fairmaire. 127.

**MYRMEDONIA** [Staphylinidae].

- *brevipennis*. Bernhauer. 21.  
 — *laevicauda*. Bernhauer. 21.  
 — *semiflava*. Bernhauer. 21.

**Mysticomenus** n. gen. [Carabidae].

- Sharp. 462.  
 — *tibialis*. Sharp. 462.

**NANOPHYES** [Curculionidae].

- *fasciolatus*. Fairmaire. 132.  
 — *inaequalis*. Fairmaire. 128.  
 — *perelegans*. Fairmaire. 132.  
 — *pleuralis*. Fairmaire. 132.  
 — *tesseraula*. Fairmaire. 132.  
 — *tinctus*. Fairmaire. 128.

**NARGUS** [Silphidae].

- *algericus*. Portevin. 363.  
 — *semirufus*. Portevin. 363.

**Nasclodes** n. gen. [Buprestidae]. Kerremans. 223.**NAUPACTUS** [Curculionidae].

- *tuberculatus*. Arrow. 2.

**NEBRIA** [Carabidae].

- *lafresnayei* var. *ferruginipes* n. var. Pic. 343.

**NEMOSTIRA** [Lagriidae].

- *bicolor*. Fairmaire. 128.  
 — *tennicollis*. Fairmaire. 128.

**Neobuprestis** n. gen. [Buprestidae]. Kerremans. 223.**Neocisba** n. subgen. [Tenebrionidae]. Reitter. 375.**Neocoraebus** n. gen. [Buprestidae]. Kerremans. 223.**Neojulodia** n. subgen. [Buprestidae]. Kerremans. 223.**NEOLUCANUS** [Lucanidae].

- *celebensis*. Möllenkamp. 283.

**NEOMASTRIX** [Curculionidae].

- *concolor*. Champion. 63.  
 — *setulosus*. Champion. 63.

**NEOTRICHUS** [Colydiidae].

- *guadalupensis*. Grouvelle. 160.

**NEPHRELLA** [Chrysomelidae].

- *andrevesi*. Jacoby. 203.  
 — *balyi*. Jacoby. 203.  
 — *pallida*. Jacoby. 203.

**NEPTOSTERNUS** [Dytiscidae].

- *alluaudi*. Régimbart. 371.  
 — *oberthürri*. Régimbart. 371.

**NERISSIDIUS** [Chrysomelidae].

- *rugulosus*. Weise. 521.

**Nesocidium** n. gen. [Carabidae]. Sharp. 462.

- *atomarium*. Sharp. 462.  
 — *corticarum*. Sharp. 462.  
 — *fulgens*. Sharp. 462.  
 — *koebeli*. Sharp. 462.  
 — *laeticulum*. Sharp. 462.  
 — *lahainense*. Sharp. 462.  
 — *perkinsi*. Sharp. 462.  
 — *rude*. Sharp. 462.  
 — *scydaenoides*. Sharp. 462.  
 — *amaragdinum*. Sharp. 462.

- NESOGENA** [Tenebrionidae].  
 ——— *angusta*. Fairmaire. 128.  
 ——— *basicollis*. Fairmaire. 128.  
 ——— *cinclipennis*. Fairmaire. 128.  
 ——— *simplicifrons*. Fairmaire. 128.  
 ——— *violacea*. Fairmaire. 128.
- Nesolymnaeum** n. gen. [Carabidae]. Sharp. 462.
- Nesomicrops** n. gen. [Carabidae]. Sharp. 462.  
 ——— *kauaiensis*. Sharp. 462.
- NICEA** [Chrysomelidae].  
 ——— *bennigseni*. Weise. 517.  
 ——— *diversipes*. Weise. 517.
- NIGIDIUS** [Lucanidae].  
 § ——— *gigas*. Möllenkamp. 283.
- NIPHADES** [Curculionidae].  
 ——— *carinicollis*. Hartmann. 166.  
 ——— *elongatus*. Hartmann. 166.  
 ——— *rugicollis*. Hartmann. 166.  
 ——— *tuberculatus*. Hartmann. 166.
- Niptomezium** n. gen. [Ptinidae]. Pic. 329.  
 ——— *patagonicum*. Pic. 329.  
 ——— *sparsepilosum*. Pic. 329.
- Nirinoidea** n. gen. [Chrysomelidae]. Jacoby. 205.  
 ——— *abdominalis*. Jacoby. 205.  
 ——— *staudingeri*. Jacoby. 205.
- Nisibia** n. gen. [Buprestidae]. Fairmaire. 130.
- NISOTRA** [Chrysomelidae].  
 ——— *apicicornis*. Jacoby. 202.  
 ——— *dalmani*. Jacobi. 205.  
 ——— *madagascariensis*. Jacoby. 202.  
 ——— *semicoerulea*. Jacoby. 203.
- NITOCRIS** [Cerambycidae].  
 ——— *morio*. Jordan. 218.  
 ——— *peplus*. Jordan. 218.
- Noanda** n. subgen. [Scarabaeidae]. Reitter. 377.
- NODOSTOMA** [Chrysomelidae].  
 ——— *andreuesi*. Jacoby. 203.  
 ——— *elongata*. Jacoby. 203.  
 ——— *nilghiriense*. Jacoby. 203.
- Nodostonopa** n. gen. [Chrysomelidae]. Jacoby. 202.  
 ——— *subcostata*. Jacoby. 202.
- NOMARETUS** [Carabidae].  
 ——— *debilis* var. *alpinus* n. var. Beutenmüller. 24.
- NOMOPLEUS** [Elateridae].  
 ——— *flavus*. Schwarz. 424.
- Nosorhinus** n. gen. [Curculionidae]. Fairmaire. 132.  
 ——— *cuneatus*. Fairmaire. 132.  
 ——— *gabonicus*. Fairmaire. 132.  
 ——— *orientalis*. Fairmaire. 132.
- NOTIOPHILOS** [Carabidae].  
 ——— *hilaris*. Friederichs. 141.  
 ——— *jakovlevi*. Čičerin. 78.  
 ——— *semenovi*. Čičerin. 78.
- Notocryptorhynchus** n. gen. [Curculionidae]. Lea. 250.  
 ——— *sinuatus*. Lea. 250.
- NOTODOMA** [Histeridae].  
 ——— *orientale*. Lewis. 258.
- NOTOLISTER** [Histeridae].  
 ——— *sanguinosus*. Fairmaire. 130.
- NOTOMELA** [Chrysomelidae].  
 ——— *fulvofasciata*. Jacoby. 205.
- NOTONOMUS** [Carabidae].  
 ——— *atripennis*. Sloane. 472.  
 ——— *atrodermis*. Sloane. 472.  
 ——— *besti*. Sloane. 472. §  
 ——— *cupricolor*. Sloane. 472.  
 ——— *melas*. Sloane. 472.  
 ——— *planipectus*. Sloane. 472.  
 ——— *pluripunctatus*. Sloane. 472.  
 ——— var. *aeneodorsis* n. var. Sloane. 472.  
 ——— *taylori*. Sloane. 472.
- NOTOXUS** [Anthicidae].  
 ——— *dugesi*. Pic. 351.  
 ——— *raddei*. Pic. 354.
- NYCTIPHANTUS** [Chrysomelidae].  
 ——— *custos*. Semenov. 430.
- NYCTOPAIS** [Cerambycidae].  
 ——— *tripuncta*. Jordan. 218.
- ORRIACUM** [Cerambycidae].  
 ——— *gazella*. Jordan. 218.
- OCHINA** [Ptinidae].  
 ——— *bicolor*. Csiki. 99.
- OCHTHEBIUS** [Hydrophilidae].  
 ——— *aeneocupreus*. Sahlberg. 387.  
 ——— *alluaudi*. Régimbart. 371.  
 ——— *cupricollis*. Sahlberg. 387.  
 ——— *montenegris*. Ganglbauer. 147.  
 ——— *peisonis*. Ganglbauer. 147.

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§ Also described in N. 2, i, No. 11872.

## ONTHENOMUS [Anthicidae].

*baeri*. Pic. 316.

\_\_\_\_\_ var. *nigrobinnurus*  
n. var. Pic. 316.

## OCLADIUS [Curculionidae].

*sereifovatus*. Fairmaire.  
132.

## ODONTOLABIS [Lucanidae].

*cupreiventris*. Möllenkamp.  
283.

§ \_\_\_\_\_ *elegans*. Möllenkamp. 283.

\_\_\_\_\_ *relucens*. Möllenkamp. 283.

§ \_\_\_\_\_ *tarandus*. Möllenkamp. 283.

## ODONTONYCHUS [Elateridae].

*sambesianus*. Schwarz. 424.

## ODONTRIA [Scarabaeidae].

*epomeas*. Lewis. 259.

## OEAX [Cerambycidae].

*collaris*. Jordan. 218.

\_\_\_\_\_ *lateralis*. Jordan. 218.

## OEDEMERA [Oedemeridae].

*euboica*. Pic. 333.

## OEDIONYCHIS [Chrysomelidae].

*nilgiriensis*. Jacoby. 203.

## OIDES [Chrysomelidae].

*minor*. Jacoby. 205.

\_\_\_\_\_ *sublaevipennis*. Jacoby. 205.

## OILIABUS n. gen. [Curculionidae]. Fair-

maire. 128.

\_\_\_\_\_ *grandicollis*. Fairmaire.  
128.

## OMALIUM [Staphylinidae].

*italicum*. Bernhauer. 23.

## OMOSIPHORA [Nitidulidae].

*sibirica*. Sahlberg. 387.

## OMOSITA [Nitidulidae].

*ornata*. Grouvelle. 161.

## ONCIDERES [Cerambycidae].

*sladeni*. Gahan and Arrow.  
145.

## ONTHOPHAGUS [Scarabaeidae].

*antillarum*. Arrow. 3.

\_\_\_\_\_ *aureoviridanus*. Blackburn.  
25.

\_\_\_\_\_ *bovilli*. Blackburn. 25.

\_\_\_\_\_ *comperei*. Blackburn. 25.

\_\_\_\_\_ *cowleyi*. Blackburn. 25.

\_\_\_\_\_ *dumbrelli*. Blackburn. 25.

\_\_\_\_\_ *fitzroyensis*. Blackburn. 25.

\_\_\_\_\_ *fletcheri*. Blackburn. 25.

\_\_\_\_\_ *frenchi*. Blackburn. 25.

## ONTHOPHAGUS [Scarabaeidae].

*helmsi*. Blackburn. 25.

\_\_\_\_\_ *howitti*. Blackburn. 25.

\_\_\_\_\_ *koebeleri*. Blackburn. 25.

\_\_\_\_\_ *macleayi*. Blackburn. 25.

\_\_\_\_\_ *margaretensis*. Blackburn.  
25.

\_\_\_\_\_ *negatorius*. Blackburn. 25.

\_\_\_\_\_ *palmerstoni*. Blackburn. 25.

\_\_\_\_\_ *pontilis*. Blackburn. 25.

\_\_\_\_\_ *pugnacior*. Blackburn. 25.

\_\_\_\_\_ *queenlandicus*. Blackburn.  
25.

\_\_\_\_\_ *sloanei*. Blackburn. 25.

\_\_\_\_\_ *submuticus*. Blackburn. 25.

\_\_\_\_\_ *subocelliger*. Blackburn. 25.

\_\_\_\_\_ *sydneyensis*. Blackburn. 25.

\_\_\_\_\_ *tamworthi*. Blackburn. 25.

\_\_\_\_\_ *twedensis*. Blackburn. 25.

\_\_\_\_\_ *victoriensis*. Blackburn. 25.

\_\_\_\_\_ *zietsi*. Blackburn. 25.

## OOPTERINUS [Curculionidae].

*aeneopiceus*. Champion. 63.

\_\_\_\_\_ *bactrianus*. Champion. 63.

\_\_\_\_\_ *castaneipennis*. Champion.  
63.

\_\_\_\_\_ *gibbipennis*. Champion. 63.

\_\_\_\_\_ *glabratus*. Champion. 63.

\_\_\_\_\_ *laevigatus*. Champion. 63.

\_\_\_\_\_ *piliferus*. Champion. 63.

## OOPTERUS [Carabidae].

*latipennis*. Broun. 53.

\_\_\_\_\_ *parvulus*. Broun. 53.

\_\_\_\_\_ *probus*. Broun. 53.

## OPHIONEA [Carabidae].

*försteri*. Bouchard. 36.

## OPHONUS [Carabidae].

*nigripennis*. Sahlberg. 387.

## OPILO [Cleridae].

*basicrus*. Fairmaire. 127.

\_\_\_\_\_ *geniculatus*. Fairmaire. 127.

\_\_\_\_\_ *grossepunctatus*. Fairmaire.  
127.

\_\_\_\_\_ *impressus*. Fairmaire. 127.

\_\_\_\_\_ *incongruus*. Fairmaire. 127.

\_\_\_\_\_ *latefasciatus*. Fairmaire.  
127.

\_\_\_\_\_ *quadriplagiatus*. Fairmaire.  
127.

\_\_\_\_\_ *sanguinipes*. Fairmaire.  
127.

\_\_\_\_\_ *strigicollis*. Fairmaire. 127.

\_\_\_\_\_ *trabeatus*. Fairmaire. 127.

\_\_\_\_\_ *transversus*. Fairmaire.  
127.

\_\_\_\_\_ *uniformis*. Fairmaire. 127.

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## OPSAMATES [Cerambycidae].

— *piceo-niteus*. Fairmaire. 127.

## ORETOGYTRUS [Gyrinidae].

— *attenuatus*. Régimbart. 371.  
— *purpureus* var. *meridionalis*  
n. var. Régimbart. 371.

**Orectoscelis** n. gen. [Histeridae]. Lewis. 258.

— *humeralis*. Lewis. 258.

**Orphnium** n. gen. [Histeridae]. Lewis. 258.

## ORTALIA [Coccinellidae].

— *pectoralis*. Weise. 523.

## ORTHAEA [Chrysomelidae].

— *fulva*. Jacoby. 203.

## ORTHAULACA [Chrysomelidae].

— *limbatipennis*. Jacoby. 203.

## OSPHEIA [Malacodermidae].

— *cylindromorpha* var. *dela-*  
*grangei* n. var. Pic. 333.

## OTEROPHLOEUS [Tenebrionidae].

— *deflexangulus*. Reitter. 375.

## OTIDOCERPHALUS [Curculionidae].

— *adpersus*. Champion. 63.  
— *aeneus*. Champion. 63.  
— *albolineatus*. Champion. 63.  
— *angusticollis*. Champion. 63.  
— *beckeri*. Champion. 63.  
— *bidentatus*. Champion. 63.  
— *brevicollis*. Champion. 63.  
— *brevisetis*. Champion. 63.  
— *canescens*. Champion. 63.  
— *castaneus*. Champion. 63.  
— *cavifrons*. Champion. 63.  
— *comatus*. Champion. 63.  
— *compressus*. Champion. 63.  
— *constrictus*. Champion. 63.  
— *corae*. Champion. 63.  
— *crassirostris*. Champion. 63.  
— *crinitus*. Champion. 63.  
— *cuprinus*. Champion. 63.  
— *curvimanus*. Champion. 63.  
— *cylindricollis*. Champion. 63.  
— *dentipes*. Champion. 63.  
— *divisus*. Champion. 63.  
— *dugei*. Champion. 63.  
— *duplicatus*. Champion. 63.  
— *ericus*. Champion. 63.

## OTIDOCERPHALUS [Curculionidae].

— *fasciculatus*. Champion. 63.  
— *flavipilis*. Champion. 63.  
— *flohri*. Champion. 63.  
— *foveifrons*. Champion. 63.  
— *gibbicollis*. Champion. 63.  
— *hystericosus*. Champion. 63.  
— *interruptus*. Champion. 63.  
— *laevipennis*. Champion. 63.  
— *laevis*. Champion. 63.  
— *latidens*. Champion. 63.  
— *longicollis*. Champion. 63.  
— *longipennis*. Champion. 63.  
— *longipilis*. Champion. 63.  
— *megaloce*. Champion. 63.  
— *multilineatus*. Champion. 63.  
— *octolineatus*. Champion. 63.  
— *panamensis*. Champion. 63.  
— *prolongatus*. Champion. 63.  
— *puncticeps*. Champion. 63.  
— *rugicollis*. Champion. 63.  
— *setiger*. Champion. 63.  
— *similis*. Champion. 63.  
— *taeniatus*. Champion. 63.  
— *tenuirostris*. Champion. 63.  
— *tonsilis*. Champion. 63.  
— *versicolor*. Champion. 63.  
— *vestitus*. Champion. 63.  
— *vicinus*. Champion. 63.  
— *villosus*. Champion. 63.

## OTILEA [Chrysomelidae].

— *ornata*. Jacoby. 201.  
— *peruviana*. Jacoby. 201.

## OTTORRHYNCHUS [Curculionidae].

— *antarcticus*. Stierlin. 484.  
— *cephalonicus*. Pic. 328.  
— *ligneoideus*. Stierlin. 483.  
— *rufiventris*. Stierlin. 483.  
— *viridisetosus*. Stierlin. 484.

## OXYCARA [Tenebrionidae].

— *deronectina*. Reitter. 375.

**Oxycarops** n. gen. [Tenebrionidae].  
Reitter. 375.

**Oxycanla** n. gen. [Cerambycidae].  
Jordan. 218.

— *verruca*. Jordan. 218.

## OXYHAMMUS [Cerambycidae].

— *cinctus*. Jordan. 218.  
— *derolius*. Jordan. 218.

## OXYLEPUS [Chrysomelidae].

— *kossmati*. Spaeth. 478.

- OXYONYX** [Curculionidae].  
 ——— *acutangulus*. Schultze. 416.  
 ——— *inornatus*. Schultze. 416.
- OXYTELUS** [Staphylinidae].  
 ——— *lucens*. Fauvel. 21.
- PACHNEPHORUS** [Chrysomelidae].  
 ——— *graeus*. Pic. 323.
- PACHNODA** [Scarabaeidae].  
 ——— *usambarica*. Moser. 287.
- PACHYOHILE** [Tenebrionidae].  
 ——— *aulonoscelis*. Reitter. 375.  
 ——— *desbrocherei*. Reitter. 375.  
 ——— *obtusocostata*. Reitter. 375.
- Pachychilina** n. gen. [Tenebrionidae].  
 ——— Reitter. 375.  
 ——— *ozyophthalmus*. Reitter. 375.
- Pachycytes** n. gen. [Cerambycidae].  
 ——— Fairmaire. 128.  
 ——— *rufovestitus*. Fairmaire. 128.
- PACHYDEMA** [Scarabaeidae].  
 ——— *albipilis*. Reitter. 377.  
 ——— *conica*. Reitter. 377.  
 ——— *dubitalis*. Reitter. 377.  
 ——— *monochroa*. Reitter. 377.  
 ——— *phyllorperthoides*. Reitter. 377.  
 ——— *tarsalis*. Reitter. 377.
- Pachydemocera** n. gen. [Scarabaeidae].  
 ——— Reitter. 377.  
 ——— *pubicavula*. Reitter. 377.  
 ——— *pubimargo*. Reitter. 377.
- Pachynectis** n. gen. [Dytiscidae].  
 ——— Régimbart. 371.  
 ——— *ventricosus*. Régimbart. 371.
- PACHYONYX** [Curculionidae].  
 ——— *inaequalis*. Fairmaire. 128.  
 ——— *perrieri*. Fairmaire. 132.  
 ——— *seriatus*. Fairmaire. 132.
- PACHYSTOLA** [Cerambycidae].  
 ——— *trituberculata*: *thomensis* n. subsp. Jordan. 219.
- Palaeophyla** n. gen. [Chrysomelidae].  
 ——— Jacoby. 199.  
 ——— *granulosa*. Jacoby. 199.  
 ——— *semirugosa*. Jacoby. 199.
- PALLENIS** [Cleridae].  
 ——— *crinifera*. Fairmaire. 127.  
 ——— *cyanipennis*. Fairmaire. 127.  
 ——— *geminata*. Fairmaire. 127.  
 ——— *hexaspila*. Fairmaire. 127.  
 ——— *leucospila*. Fairmaire. 127.
- PALLENIS** [Cleridae].  
 ——— *morosa*. Fairmaire. 127.  
 ——— *octoguttata*. Fairmaire. 127.  
 ——— *perrieri*. Fairmaire. 127.  
 ——— *polychroa*. Fairmaire. 127.  
 ——— *rectepilosa*. Fairmaire. 127.  
 ——— *semiguttata*. Fairmaire. 127.  
 ——— *sexguttata*. Fairmaire. 127.
- PALLODES** [Nitidulidae].  
 ——— *harmandi*. Grouvelle. 161.  
 ——— *parvus*. Grouvelle. 161.
- Panotrogus** n. gen. [Scarabaeidae].  
 ——— Reitter. 377.
- PANTOCOMETIS** [Chrysomelidae].  
 ——— *horni*. Weise. 507.
- PANTOLIA** [Scarabaeidae].  
 ——— *subcostata*. Fairmaire. 130.
- PANTORHYTES** [Curculionidae].  
 ——— *albopunctatulus*. Heller. 172.  
 ——— *corallifer*. Heller. 172.  
 ——— *papillosus*. Heller. 172.  
 ——— *rarus*. Heller. 172.  
 ——— *salomonis*. Heller. 172.  
 ——— *vibicifer*. Heller. 172.
- PARACARDIOPHORUS** [Elatерidae].  
 ——— *dissimilis*. Schwarz. 425.  
 ——— *jenisseensis*. Sahlberg. 387.
- Paracastalia** n. gen. [Buprestidae].  
 ——— Kerremans. 223.
- PARACOSMESUS** [Elatерidae].  
 ——— *bifasciatus*. Schwarz. 422.  
 ——— *exiguus*. Schwarz. 422.
- PARACUPTA** [Buprestidae].  
 ——— *capitata*. Kerremans. 223.  
 ——— *marginalis*. Kerremans. 224.
- PARAOYMUS** [Hydrophilidae].  
 ——— *chalcus*. Régimbart. 371.  
 ——— *lilliputamis*. Régimbart. 371.  
 ——— *minor*. Régimbart. 371.
- PARAEUPTA** [Buprestidae].  
 ——— *bollicosa*. Blackburn. 25.
- PARALOCUS** [Cerambycidae].  
 ——— *brevipennis*. Fairmaire. 128.
- PARANDRA** [Cerambycidae].  
 ——— *brachyderes*. Lameere. 243.  
 ——— *brevicollis*. Lameere. 243.  
 ——— *expectata*. Lameere. 243.  
 ——— *heterostyla*. Lameere. 243.

- PARANOBIUM** [Ptinidae].  
 — *forbesii*. Gahan. 144.
- PARAPOMACHILIUS** [Elateridae].  
 — *brunnipennis*. Schwarz. 422.
- PARASPHENOGASTER** n. gen. [Curculionidae]. Heller. 172.  
 — *gracilicollis*. Heller. 172.
- PARASTASIA** [Scarabaeidae].  
 — *buruensis*. Ohaus. 306.  
 — *laratina*. Ohaus. 306.  
 — *moseri*. Ohaus. 306.
- PARATAXOTUS** [Cerambycidae].  
 — *inexpectatus*. Fairmaire. 128.
- PAROATUS** [Tenebrionidae].  
 — *dorsoplicatus*. Fairmaire. 128.
- PARHEMIOPINUS** n. gen. [Elateridae]. Schwarz. 424.  
 — *nigripennis*. Schwarz. 424.
- PARIDEXIA** [Cicindelidae].  
 — *fulvipes*: *australis* n. subsp. Alluaud. 1.
- PARNOPS** [Chrysomelidae].  
 — *atriceps*. Pic. 346.
- PAROEA** n. gen. [Cerambycidae]. Jordan. 218.
- PAROEME** [Cerambycidae].  
 — *inermis*. Jordan. 218.  
 — *similis*. Jordan. 218.
- PAROMALUS** [Histeridae].  
 — *saucius*. Blackburn. 25.  
 — *terrae-reginae*. Blackburn. 25.
- PAROPISTERNA** [Chrysomelidae].  
 — *striata*. Weise. 509.
- PARYONYCHUS** n. gen. [Curculionidae]. Fairmaire. 128.  
 — *setosulus*. Fairmaire. 128.
- PATULEIUS** n. gen. [Cleridae]. Fairmaire. 127.  
 — *ovulum*. Fairmaire. 127.  
 — *rufonitens*. Fairmaire. 127.  
 — *terminatus*. Fairmaire. 127.  
 — *ustulatus*. Fairmaire. 127.
- PEOTINICHELUS** [Scarabaeidae].  
 — *bucharicus*. Reitter. 377.
- PEOTOCERA** [Elateridae].  
 — *sulcata*. Fleutiaux. 137.
- PEDILOPHORUS** [Byrrhidae].  
 — *speciosus*. Sahlberg. 387.
- PELINA** [Coccinellidae].  
 — *geometrica*. Weise. 523.
- PELOCHROUS**.  
 — *scutellaris* var. *flaviceps* n. var. Pic. 346.
- PELONIUM** [Cleridae].  
 — *cyaneum*. Gorham. 158.  
 — *divisum*. Gorham. 158.  
 — *schenklingi*. Gorham. 158.  
 — *thoracicum*. Gorham. 158.
- PENTAGONICA** [Carabidae].  
 — *dichroa*. Sloane. 472.
- PENTHOPOKUS** [Carabidae].  
 — *astutus*. Cicerin. 84.
- PENTODON** [Scarabaeidae].  
 — *foreipennis*. Jakovlev. 209.
- PEPLOPTERA** [Chrysomelidae].  
 — *braunsi*. Jacoby. 200.
- PERIGONA** [Carabidae].  
 — *australiae*. Sloane. 472.
- PERISSOPS** [Curculionidae].  
 — *albonotatus*. Lea. 250.  
 — *brevicollis*. Lea. 250.  
 — *earus*. Lea. 250.  
 — *granulatus*. Lea. 250.  
 — *intricatus*. Lea. 250.  
 — *multimaculatus*. Lea. 250.  
 — *robiginosus*. Lea. 250.  
 — *semicalvus*. Lea. 250.  
 — *variegatus*. Lea. 250.
- Petalosoma** n. gen. [Histeridae]. Lewis. 258.
- PHALERIA** [Tenebrionidae].  
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- PHILOCAULUS** n. gen. [Curculionidae]. Fairmaire. 132.  
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- PHILONTHUS** [Staphylinidae].  
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 — *fischeri*. Bernhauer. 21.  
 — *glengelgi*. Blackburn. 25.  
 — *sublaevipennis*. Fauvel. 21.
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 — *cribrosus*. Régimbart. 371.  
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- PHORTICOSOMUS** [Carabidae].  
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- Phrystanus** n. gen. [Curculionidae].  
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- PHYLOBIUS** [Curculionidae].  
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 — *simplicipennis*. Jacoby. 205.  
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- PHYLLODREPA** [Staphylinidae].  
 — *devillei*. Bernhauer. 23.
- PHYLLOTRETA** [Chrysomelidae].  
 — *amabilis*. Weise. 521.  
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 — *gerstaeckeri*. Jacoby. 205.
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 — *klugi*. Jacoby. 202.
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 — *dohrni*. Jacoby. 205.
- Plasocaulus** n. gen. [Curculionidae].  
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 — *nossibianus*. Fairmaire. 132.
- PIAZORRHINUS** [Curculionidae].  
 — *albocinctus*. Champion. 63.  
 — *albofasciatus*. Champion. 63.  
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 — *cingulatus*. Champion. 63.  
 — *cionoides*. Champion. 63.  
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 — *cyaneus*. Champion. 63.  
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- PIAZORRHINUS** [Curculionidae].  
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 — *scutellaris*. Champion. 63.  
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 — *euvorovi*. Baeckmann. 9.
- PINACOSTERNA** [Cerambycidae].  
 — *mimica*. Jordan. 218.  
 — *smithi*. Jordan. 218.
- PINOTUS** [Scarabaeidae].  
 — *roberti*. Gahan and Arrow. 145.
- PITHISCUS** [Buprestidae].  
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 — *elongatus*. Kerremans. 223.  
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- PIAESIORRHINA** [Scarabaeidae].  
 — *ugandensis*. Heath. 167.
- PLAGIASMA** n. gen. [Chrysomelidae].  
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 — *sublineata*. Weise. 521.
- PLAGIODERA** [Chrysomelidae].  
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 — *opacicollis*. Weise. 521.  
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- PLAGIOMUS** [Cerambycidae].  
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 — *unicolor*. Jordan. 218.
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 — *polita*. Waterhouse. 506.
- PLATAMUS** [Cucujidae].  
 — *dufani*. Grouvelle. 160.
- PLATYCOOTYLUS** [Cucujidae].  
 — *coloratus*. Blackburn. 25.
- PLATTYNASPIS** [Coccinellidae].  
 — *weyersi*. Weise. 522.
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- PLATYSMA** [Carabidae].  
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 — *apicicornis*. Jacoby. 205.  
 — *claraveaui*. Jacoby. 205.  
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 — *incomta*. Weise. 516.  
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 — *laetipennis*. Jacoby. 205.  
 — *longicornis*. Jacoby. 205.  
 — *minor*. Weise. 516.  
 — *pauli*. Weise. 516.  
 — *semmionensis*. Weise. 516.  
 — *sublaetipennis*. Jacoby. 205.  
 — *tenella*. Weise. 516.  
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 — *varicornis*. Jacoby. 199.
- PLECTONATHRON** [Cerambycidae].  
 — *micrope*. Jordan. 219.
- PLEROPUS** [Curculionidae].  
 — *dentatus*. Fairmaire. 132.
- PLEDIANA** n. subgen. [Scarabaeidae].  
 — Reitter. 377.
- PLESIOPHTHALMUS** [Tenebrionidae].  
 — *anthrax*. Fairmaire. 133.  
 — *cruralis*. Fairmaire. 133.  
 — *metallicus*. Fairmaire. 133.
- PLESTHENUS** [Passalidae].  
 — *scutellopunctatus*. Zang. 527.
- POCADIUS** [Nitidulidae].  
 — *harmandi*. Grouvelle. 161.
- PODABRUS** [Malacoderminidae].  
 — *luteonotatus*. Pic. 328.  
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- PODAGRICA** [Chrysomelidae].  
 — *impressipennis*. Jacoby. 199.  
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- PODISTRINA** [Malacodermidæ].  
 — *cameroni*. Pic. 345.  
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 — *intermedius*. Bouchard. 37.  
 — *montanus*. Bouchard. 37.  
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- Pogonoidius** n. subgen. [Carabidæ].  
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- POGONUS** [Carabidæ].  
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 — *callimus*. Jordan. 218.
- POLYBOTHRIIS** [Buprestidæ].  
 — *pyrogastra*. Fairmaire. 128.  
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- Polycestoides** n. gen. [Buprestidæ].  
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 — *chrysis*. Kerremans. 223.
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 — *africanus*. Jordan. 218.
- POMACHILIUS** [Elateridæ].  
 — *antennalis*. Schwarz. 422.  
 — *intermedius*. Schwarz. 422.  
 — *marginicollis*. Schwarz.  
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 — *pulehralis*. Schwarz. 422.
- PORPHYRASPIIS** [Chrysomelidæ].  
 — *panamae*. Spaeth. 477.  
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 — *valida*. Spaeth. 477.
- Porphyrtoma** n. gen. [Chrysomelidæ].  
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- PRAONETHA** [Cerambycidæ].  
 — *apicata*. Fairmaire. 128.
- PRASOCURIS** [Chrysomelidæ].  
 — *varendorffi*. Weise. 521.
- Priartobium** n. gen. [Ptinidæ]. Reitter.  
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 — *seriffune*. Reitter. 376.
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 — *alutaceus*. Bernhauer. 20.  
 — *gestroi*. Bernhauer. 20.  
 — *immarginatus*. Bernhauer  
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 — *inaequalis*. Bernhauer. 20.  
 — *kraatzi*. Bernhauer. 20.  
 — *miles*. Bernhauer. 20.  
 — *modiglianii*. Bernhauer. 20.
- PRIOCHIRUS** [Staphylinidæ].  
 — *poseidon*. Bernhauer. 20.  
 — *propinquus*. Bernhauer. 20.  
 — *sexdentatus*. Bernhauer. 20.  
 — *subnitidus*. Bernhauer. 20.  
 — *sumatrensis*. Bernhauer. 20.  
 — *tetraodon*. Epp. 20.  
 — *tonkinensis*. Bernhauer. 20.
- PRIONEMERUS** [Curculionidæ].  
 — *carinatus*. Champion. 63.  
 — *femoralis*. Champion. 63.  
 — *rugicollis*. Champion. 63.  
 — *simplex*. Champion. 63.  
 — *trigonus*. Champion. 63.
- Prioproctus** n. gen. [Tenebrionidæ].  
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 — *oertzeni*. Kolbe. 233.
- PRIOSCELIS** [Tenebrionidæ].  
 — *haesitans*. Kolbe. 233.  
 — *preussi*. Kolbe. 233.  
 — *sestuooidi*. Kolbe. 233.
- Pristophilus** n. gen. [Tenebrionidæ].  
 Kolbe. 233.
- PROAGOSTERNUS** [Scarabaeidæ].  
 — *rubiginus*. Fairmaire. 128.
- Prodisenochus** n. gen. [Carabidæ].  
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- PROICTES** [Curculionidæ].  
 — *alluandi*. Fairmaire. 132.  
 — *asper*. Fairmaire. 132.  
 — *coquerelii*. Fairmaire. 132.  
 — *hystrix*. Fairmaire. 132.  
 — *pictus*. Fairmaire. 128.  
 — *vittulatus*. Fairmaire. 132.
- Proictidius** n. gen. [Curculionidæ].  
 Fairmaire. 132.  
 — *maculosus*. Fairmaire. 132.
- Propitius** n. gen. [Coccinellidæ]. Weise.  
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 — *subopacus*. Weise. 522.
- PROSICELA** [Chrysomelidæ].  
 — *inornata*. Jacoby. 198.  
 — *maculata*. Jacoby. 198.
- PROSOPOCERA** [Cerambycidæ].  
 — *cretacea*. Jordan. 218.  
 — *fulva*. Jordan. 218.  
 — *insignis*. Jordan. 218.
- PROSOPOCOELUS** [Lucanidæ].  
 — *mandibularis*. Möllenkamp.  
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- PROSTENUS** [Cistelidæ].  
 — *sladeni*. Gahan and Arrow.  
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- PROSTOMIS** [Cucujidæ].  
 — *gladiator*. Blackburn. 25.

- Protomerus** n. gen. [Anthribidae]. Fairmaire. 128.  
 ——— *longitarsis*. Fairmaire. 128.
- PROTOPALUS** [Curculionidae].  
 ——— *schoenherri* var. *antennarius* n. var. Lea. 250.  
 ——— *tectus*. Lea. 250.
- PSEAMOEUCUS** [Cucujidae].  
 ——— *incertior*. Blackburn. 25.  
 ——— *t-notatus*. Blackburn. 25.  
 ——— *upsilon*. Blackburn. 25.  
 ——— *tittifera*. Blackburn. 25.
- PSELAPHOPHUS** [Pselaphidae].  
 ——— *sulciiceps*. Raffray. 370.
- PSEUDANTHONOMUS** [Curculionidae].  
 ——— *apionoides*. Champion. 63.  
 ——— *cretaceus*. Champion. 63.  
 ——— *curvirostris*. Champion. 63.  
 ——— *griseipilis*. Champion. 63.  
 ——— *guttatus*. Champion. 63.  
 ——— *hispidus*. Champion. 63.  
 ——— *lituratus*. Champion. 63.  
 ——— *meridionalis*. Champion. 63.  
 ——— *nubilosus*. Champion. 63.  
 ——— *rufotestaceus*. Champion. 63.
- Pseudaphthosa** n. gen. [Chrysomelidae].  
 ——— *Jacoby*. 203.  
 ——— *humeralis*. Jacoby. 203.
- Pseudapophylla** n. gen. [Chrysomelidae].  
 ——— *Jacoby*. 199.
- Pseudeba** n. gen. [Colydiidae]. Blackburn. 25.  
 ——— *novica*. Blackburn. 25.
- PSEUDOBALANINUS** [Curculionidae].  
 ——— *metasternalis*. Fairmaire. 128.
- Pseudobroschus** n. gen. [Carabidae].  
 ——— *Sharp*. 462.  
 ——— *lentus*. Sharp. 462.
- PSEUDOCAMPTODES** [Nitidulidae].  
 ——— *blackburni*. Grouvelle. 164.  
 ——— *montanus*. Grouvelle. 162.
- PSEUDOCOLASPIS** [Chrysomelidae].  
 ——— *ducivieri*. Jacoby. 205.  
 ——— *tuberculata*. Jacoby. 205.
- PSEUDOCRANIA** [Chrysomelidae].  
 ——— *assimilis*. Weise. 516.
- PSEUDOGENA** [Tenebrionidae].  
 ——— *aequalis*. Fairmaire. 128.  
 ——— *alternans*. Fairmaire. 128.  
 ——— *bitincta*. Fairmaire. 131.  
 ——— *inaequalis*. Fairmaire. 131.  
 ——— *purpurina*. Fairmaire. 131.
- Pseudolema** n. gen. [Chrysomelidae].  
 ——— *Jacoby*. 203.  
 ——— *suturalis*. Jacoby. 203.
- Pseudolognatha** n. gen. [Chrysomelidae].  
 ——— *Jacoby*. 199.  
 ——— *salisburyensis*. Jacoby. 199.
- Pseudomaecraspis** n. gen. [Scarabaeidae].  
 ——— *Ohaus*. 307.
- PSEUDOMESOMPHALIA** [Chrysomelidae].  
 ——— *aurosetosa*. Spaeth. 477.  
 ——— *croceo-tittata*. Spaeth. 477.  
 ——— *luanocensis*. Spaeth. 477.  
 ——— *incae*. Spaeth. 477.  
 ——— *marthae*. Spaeth. 477.  
 ——— *nickerli*. Spaeth. 477.  
 ——— *punctatissima*. Spaeth. 477.  
 ——— *trigonata*. Spaeth. 477.
- PSEUDOSCELIDA** [Chrysomelidae].  
 ——— *fulvicornis*. Jacoby. 203.  
 ——— *indica*. Jacoby. 203.
- PSEUDOSTIRA** [Tenebrionidae].  
 ——— *laetipennis*. Fairmaire. 128.
- Pseudostonopa** n. gen. [Chrysomelidae].  
 ——— *Jacoby*. 203.  
 ——— *bicolor*. Jacoby. 203.
- Pseudotaenia** n. gen. [Buprestidae].  
 ——— *Kerremans*. 223.
- Pseudotalpophylla** n. gen. [Tenebrionidae].  
 ——— *Reitter*. 375.
- Pseudotepperia** n. gen. [Curculionidae].  
 ——— *Lea*. 250.  
 ——— *compta*. Lea. 250.
- PSILOCLADUS** [Malacodermidae].  
 ——— *harmandi*. Olivier. 308.
- PSILOPTERA** [Buprestidae].  
 ——— *aurocincta*. Kerremans. 223.  
 ——— *azurea*. Kerremans. 223.  
 ——— *carreti*. Kerremans. 223.  
 ——— *coeruleicentris*. Kerremans. 223.  
 ——— *cupricollis*. Kerremans. 223.  
 ——— *differens*. Kerremans. 223.  
 ——— *dubitata*. Kerremans. 223.  
 ——— *farinosa*. Kerremans. 223.  
 ——— *insignis*. Kerremans. 223.  
 ——— *laticollis*. Kerremans. 223.  
 ——— *similis*. Kerremans. 223.  
 ——— *subobtusata*. Kerremans. 223.  
 ——— *sulcicollis*. Kerremans. 223.  
 ——— *waterhousei*. Kerremans. 223.

## PTEROSTICHUS [Carabidae].

- *hagenbachii* var. *jaqueti* n.  
    var. Pic. 344.  
 — *kirkianus*. Broun. 53.  
 — *memes*. Broun. 53.  
 — *multipunctatus* var. *obscuro-*  
    *color* n. var. Pic. 344.  
 — *prasignis*. Broun. 53.  
 — *setiventris*. Broun. 53.

## PTINUS [Ptinidae].

- *aticus*. Pic. 323.  
 — *femoralis*: *ravelli* n. subsp.  
    Pic. 323.  
 — *fulvocapillus*. Pic. 323.  
 — *kiesenuctteri* var. *cytherias*  
    n. var. Pic. 346.  
 — *major*. Pic. 323.  
 — *silvestrii*. Pic. 329.

## PYGMA [Buprestidae].

- *11-maculata* var. *bretinotata*  
    n. var. Pic. 346.

## PUBULA n. gen. [Colydiidae]. Grouvelle.

- 164.  
 — *squamifera*. Grouvelle. 164.

## PULLUS [Coccinellidae].

- *clarareani*. Weise. 522.  
 — *impiger*. Weise. 522.  
 — *saginatus*. Weise. 523.

## PURPURICENUS [Cerambycidae].

- *budensis* var. *bitlisensis* n.  
    var. Pic. 322.  
 —     var. *caucasicus* n.  
    var. Pic. 322.  
 — *zarudnianus*. Semenov. 450.

## PYCNOMERUS [Colydiidae].

- *interstitialis*. Blackburn. 25.  
 — *nitiventris*. Broun. 53.  
 — *robusticollis*. Blackburn. 25.  
 — *sulcicollis*. Blackburn. 25.

## PYGICERA n. gen. [Buprestidae]. Kerremans. 223.

## PYGORA [Scarabaeidae].

- *bioculata*. Fairmaire. 128.  
 — *cruralis*. Fairmaire. 128.  
 — *diegana*. Fairmaire. 128.  
 — *immaculata*. Fairmaire. 128.  
 — *melanura*. Fairmaire. 130.

## PYRRHOPODO [Scarabaeidae].

- *rufovariorum*. Fairmaire. 130.

## PYXIDICERUS [Pselaphidae].

- *annularis*. Raffray. 370.  
 — *monoceros*. Raffray. 370.

## QUEDIUS [Staphylinidae].

- *lederi*. Bernhauer. 23.  
 — *nelsonensis*. Blackburn. 25.  
 — *rubripennis*. Bernhauer. 22.

## QUEENSLANDICA n. gen. [Curculionidae].

- *Lea*. 250.  
 — *munda*. Lea. 250.  
 — *posticalis*. Lea. 250.

## RABYXIS [Pselaphidae].

- *clavata*. Raffray. 369.  
 — *heterocera*. Raffray. 369.  
 — *simplex*. Raffray. 369.

## RAWASIA [Anthribidae].

- *fulvescens*. Jordan. 217.  
 — *griseescens*. Jordan. 217.

## REICHENBACHIA [Pselaphidae].

- *abluta*. Raffray. 370.  
 — *acinosa*. Raffray. 370.  
 — *alluaudi*. Raffray. 369.  
 — *apicata*. Raffray. 370.  
 — *bifosca*. Raffray. 369.  
 — *bironis*. Raffray. 370.  
 — *caudata*. Raffray. 370.  
 — *compacta*. Raffray. 370.  
 — *coxalis*. Raffray. 369.  
 — *defossa*. Raffray. 370.  
 — *ecarinata*. Raffray. 369.  
 — *egena*. Raffray. 370.  
 — *illimis*. Raffray. 370.  
 — *impedita*. Raffray. 370.  
 — *indecora*. Raffray. 370.  
 — *infonda*. Raffray. 370.  
 — *lacerata*. Raffray. 370.  
 — *laciniosa*. Raffray. 370.  
 — *lippa*. Raffray. 370.  
 — *marcida*. Raffray. 370.  
 — *maxortia*. Raffray. 370.  
 — *misella*. Raffray. 370.  
 — *multifora*. Raffray. 370.  
 — *notha*. Raffray. 370.  
 — *obstipa*. Raffray. 370.  
 — *semipunctata*. Raffray. 370.  
 — *sinuatipes*. Raffray. 370.  
 — *spiniventris*. Raffray. 370.  
 — *tanalensis*. Raffray. 369.

## REITTERELLA [Tenebrionidae].

- *gracillima*. Semenov. 431.

## RHADINOCYBA [Curculionidae].

- *aenea*. Heller. 172.  
 — *nigricollis*. Heller. 172.  
 — *splendida*. Heller. 172.

## RHAEOLESTES n. gen. [Carabidae].

- *Sloane*. 472.  
 — *walkeri*. Sloane. 472.

## RHAGONYCHA [Malacodermidae].

- *beckeri*. Pic. 328.

## RHAMNUSIUM [Cerambycidae].

- *anatolicum* var. *obscuriceps*  
    n. var. Pic. 346.

## RHAPIDOPALPA [Chrysomelidae].

- *africana*. Weise. 508.

- RHEMBASTUS** [Chrysomelidae].  
 — *caeruleipennis*. Jacoby. 202.  
 — *rugicollis*. Jacoby. 202.  
 — *nubaeneus*. Jacoby. 205.
- RHINOSCAPHA** [Curculionidae].  
 — *chloropunctata*. Heller. 172.  
 — *impeza*. Heller. 172.
- RHIZOPROCTUS** [Scarabaeidae].  
 — *usambarae*. Brenske. 50.
- RHIZOTROGUS** [Scarabaeidae].  
 — *areolus*. Reitter. 377.  
 — *bedeli*. Reitter. 377.  
 — *fortis*. Reitter. 377.  
 — *ignobilis*. Reitter. 377.  
 — *leucostethis*. Reitter. 377.  
 — *mimicus*. Reitter. 377.  
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